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August 6, 2018

Mr. Ken Alex, Director
Governor's Office of Planning and Research
P.O. Box 3044
Sacramento, CA 95812-3044

Re: Request for ELDP Certification of 10 South Van Ness Mixed-Use Project

Dear Mr. Alex,

This firm represents 10 SVN, LLC, sponsor of the 10 South Van Ness Mixed-Use Project (the "Project"), located at 10 South Van Ness Avenue in the Downtown/Civic Center neighborhood of San Francisco, California.¹ The City of San Francisco is the lead agency for the Project. On December 21, 2017, Governor Edmund G. Brown, Jr., determined that the Project is eligible for streamlined judicial review under the Jobs and Economic Improvement Through Environmental Leadership Act (Public Resources Code section 21178 *et seq.*) (the "Jobs and Economic Improvement Act"). The Joint Legislative Budget Committee of the California Legislature concurred with the Governor's determination on January 23, 2018.

The Project is the first residential project in San Francisco to seek ELDP certification. We are pleased that a project providing approximately 1,000 units of new housing to San Francisco is eligible for ELDP certification.

We respectfully request recertification of the Project as an Environmental Leadership Development Project ("ELDP") pursuant to Jobs and Economic Improvement Act. This recertification is requested to allow the City of San Francisco to issue the public notice set forth in Public Resources Code section 21187. This transmittal confirms that the Project meets the updated requirements of the Jobs and Economic Improvement Act as modified by AB 246, which was approved by the Governor on October 6, 2017 and became effective on January 1, 2018. The original application for ELDP certification was submitted in October 2017, and is attached hereto as Exhibit A (the "October 2017 Application").

¹ The project would encompass 1.17 acres located at 10 South Van Ness Avenue at the southwest corner of S. Van Ness Avenue and Market Street in the Downtown/Civic Center neighborhood of San Francisco. The project would demolish an existing 91,088 gross square foot (gsf), two-story, 30- to 45-foot-tall auto dealership and service center. Two project design options are being considered for the 10 S. Van Ness property: the proposed two-tower project "proposed project" (a 1,071,095-gsf, 984-unit, 41-story, 420-foot-tall, mixed-use residential building with one below-grade structure consisting of a 2-level parking garage and two separate above-ground structures each consisting of a tower on top of a podium); and the single-tower variant "project variant" (a 1,072,989-gsf, 984-unit, 55-story, 590-foot-tall, mixed-use residential building with one below-grade structure consisting of a 2-level parking garage and one above-ground structure consisting of a tower on top of a pod). The project and project variant are defined herein as the "Project".

As defined in Public Resources Code section 21180(b)(1), this updated project application provides the following information sufficient to enable the Governor to determine that:

A. the project is residential, retail, commercial, sports, cultural, entertainment, or recreational in nature;

This requirement was unchanged by AB 246, and the Project conforms, as the Project description has not changed from that contained in the October 2017 Application. Please see the description contained on page 2 of the October 2017 Application. The Project is residential and commercial/retail in nature.

B. the project, upon completion, will qualify for LEED gold certification or better. The application shall specify those design elements that make the project eligible for LEED gold certification or better, and the applicant shall submit a binding commitment to delay operating the project until it receives LEED gold certification or better. If, upon completion of construction, LEED gold certification or better is delayed as a result of the certification process rather than a project deficiency, the applicant may petition the Governor to approve project operation pending completion of the certification process.

AB 246 amended the prior version of Public Resources Code section 21180, which former version required the project to meet LEED silver certification or better. This confirms that the overall design of the Project would meet or exceed current uniform codes designed to achieve a Leadership in Energy and Environmental Design (LEED) gold rating. The new tower(s) would include energy efficiency, water conservation, low-impact development, and other green-building practices, which would be incorporated into the final design to achieve a minimum LEED gold certification.

The LEED rating system offers four certification levels for new construction that correspond to the number of credits accrued in categories for location and transportation, sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation, and regional priority (USGBC 2015). There are four levels of certification to acknowledge the degree of achievement. The number of points that the proposed project or variant earns determines the level of LEED certification that the proposed project or variant will receive:

- LEED Certified™: 40-49 points earned
- LEED Silver®: 50-59 points earned
- LEED Gold®: 60-79 points earned
- LEED Platinum®: 80+ points earned

LEED provides a level of flexibility for projects to choose the exact credits and project features. At the time of this application, the exact LEED credits and project features that would be selected to achieve LEED gold certification (i.e., 50-59 LEED points) have not yet been determined. However, some of the design features that are anticipated for contributing to achievement of LEED certification include:

- *Materials and Resources.* Credits for Construction and Demolition Waste Management. According to the Waste Management Plan, the proposed project or variant would recycle at least 75 percent of construction waste materials and is in accordance with State and City and County of San Francisco diversion targets that target a minimum of 75 percent of construction and demolition materials to be diverted from landfill disposal.
- *Location and Transportation.* Credits based on the proposed project or variant being located on a currently developed site with surrounding density and diverse land uses to promote walkability and transportation efficiency.
- *Location and Transportation.* Credits for access to high quality transit. Local transit service to the project area is provided by the San Francisco Municipal Transportation Agency (MUNI) in the form of above-ground trolley (light rail), below-ground light rail, and above-ground route bus services and by Bay Area Rapid Transit (BART) in the form of below-ground rail. The proposed project or variant would locate the functional entry of the project within a 1/4-mile walking distance of existing trolley, light rail, and bus stops.
- *Energy and Atmosphere.* Credits for optimized performance and renewable energy production. The proposed project or variant would provide a minimum of 30 kilowatts of photovoltaic panels off-site or fund the purchase of carbon offsets as an alternative. The proposed project or variant would also require the following energy efficiency measures: Energy Star-labeled products and appliances, including dishwashers in the residential units, where appropriate; use of light emitting diode (LED) lighting or other energy- efficient lighting technologies, such as occupancy sensors or daylight harvesting and dimming controls, where appropriate, to reduce electricity use; controllable thermostats, operable windows in residential units, and mechanisms to allow for efficient indoor air management, where appropriate. Additional energy efficiency measures would focus on load reduction and HVAC-related strategies and would be analyzed during the design process.
- *Water Efficiency.* Credits for the use of ultra-low flow fixtures in the residential restrooms such as low flow faucets with aerators, dual flush toilets, and waterless urinals would reduce indoor water use by a minimum of 35 percent and would be required to meet Universal Plumbing Code standards. The use of Energy Star-labeled products and appliances, including dishwashers in the residential units, where appropriate, would further improve water efficiency. The proposed project or variant would reduce outdoor water use by a minimum of 50 percent from the calculated baseline at peak watering month by installing efficient irrigation. Furthermore, the project would install onsite water systems to treat and reuse available alternate water sources for toilet and urinal flushing and irrigation.

Because final LEED certification is not granted until a project is completed and operational, the project sponsor will petition the Governor to approve construction and project operation pending completion of the certification process, as permitted under Public Resources Code Section 21178 et seq.

- C. the project will achieve at least 15 percent greater transportation efficiency, as defined in Public Resources Code section 21180(c), than comparable projects. The applicant shall provide information setting forth its basis for determining and evaluating comparable projects***

and their transportation efficiency, and how the project will achieve at least 15 percent greater transportation efficiency. For residential projects, the applicant shall also submit information demonstrating that the number of vehicle trips by residents divided by the number of residents is 15 percent more efficient than for comparable projects. For the purposes of this provision, comparable means a project of the same size, capacity and location type.

AB 246 amended Public Resources Code section 21180 to require the project achieve at least 15 percent greater transportation efficiency (as defined in Public Resources Code section 21180(c)) than comparable projects (the prior requirement was that the project would achieve at least 10 percent greater efficiency than a comparable project). The Project as described in the October 2017 Application meets this updated requirement, as the application demonstrates that the Project would achieve 30 percent greater transportation efficiency than a comparable project. As shown on page 11 of the October 2017 Application, the analysis of the project's transportation efficiency demonstrates that:

1. The project is a high-density, mixed-use urban infill project located along two major multimodal travel corridors (Market Street and South Van Ness Avenue) that have amenities serving transit, bicyclists, and pedestrians;
2. The project site affords extensive multimodal access, as it traversed by 12 existing rail and bus transit lines. The project site is located adjacent to and in close proximity to numerous Class II and Class III bicycle facilities, across the street from an existing Bay Area Bike Share station, and within a continuous pedestrian network. The project site is also immediately adjacent to the planned Van Ness Avenue BRT line currently under construction; and,
3. The project would generate 59 percent fewer daily vehicle trips and 30 percent fewer vehicle trips during the p.m. peak hour when measured against a comparable development in a less multimodal environment with fewer TDM measures.

The Project's transportation efficiency is unchanged from the October 2017 Application. The Project therefore conforms to this requirement.

D. the project is located on an infill site, as defined at Public Resources Code section 21061.3, and in an urbanized area, as defined at Public Resources Code section 21071

This requirement was unchanged by AB 246. The Project conforms per the response provided on pages 11 and 12 of the October 2017 Application.

E. the information required by Public Resources Code section 21180(b)(1) is available for projects within a metropolitan planning organization for which a sustainable communities strategy or alternative planning strategy is in effect. For the purposes of this provision, "in effect" means that the sustainable communities strategy or the alternative planning strategy has been adopted by the metropolitan planning organization, and that the Air Resources Board has accepted the metropolitan planning organization's determination that the sustainable communities strategy or alternative planning strategy meets the adopted greenhouse gas reduction targets and is not the subject of judicial challenge.

This requirement was unchanged by AB 246. The Project conforms per the response provided on pages 12 and 13 of the October 2017 Application.

- F. if the project is a multifamily residential project, evidence that (1) private vehicle parking spaces are priced and rented or purchased separately from dwelling units; or (2) the dwelling units are subject to affordability restrictions that prescribe rent or sale prices, and the cost of parking spaces cannot be unbundled from the cost of dwelling units.***

This requirement was established by AB 246. The Project would conform to this requirement, as private vehicle parking spaces would be priced and rented or purchased separately from dwelling units. The Project would comply with San Francisco Planning Code section 167 (“Parking Costs Separated from Housing Costs in New Residential Development”). Planning Code section 167 requires that, for residential buildings with more than 10 dwelling units, off-street parking “shall be leased or sold separately from the rental or purchase fees for dwelling units for the life of the dwelling units, such that potential renters or buyers have the option of renting or buying a residential unit at a price lower than would be the case if there were a single price for both the residential unit and the parking space.” The full text of Planning Code section 167 is attached hereto as Exhibit B.

- G. For projects defined in Public Resources Code section 21180(b)(2) or 21180(b)(3), information sufficient to enable the Governor to determine that the project meets the criteria set forth in those sections.***

The Project is not a project as defined in Public Resources Code section 21180(b)(2) or 21180(b)(3).

- H. Information establishing that the project entails a minimum investment of \$100 million in California through the time of completion of construction.***

This requirement was unchanged by AB 246. The Project conforms per the response provided on page 13 of the October 2017 Application.

- I. Information establishing that the prevailing and living wage requirements of Public Resources Code section 21183(b) will be satisfied.***

This requirement was unchanged by AB 246. The Project conforms per the response provided on page 14 of the October 2017 Application.

- J. Information establishing that the project will not result in any net additional greenhouse gas emissions. This information is subject to a determination signed by the Executive Officer of the Air Resources Board that the project does not result in any net additional greenhouse gas emissions, following the procedures set forth in section 6 of these Guidelines.***

This requirement was unchanged by AB 246. The Project conforms per the response provided on pages 15 and 16 of the October 2017 Application.

K. Information establishing that the project will comply with requirements for commercial and organic waste recycling in Chapters 12.8 (commencing with Public Resources Code section 42649) and 12.9 (commencing with Public Resources Code section 42649.8), as applicable.

This requirement was established by AB 246. As required by Public Resources Codes sections 42649 and 42649.8, the Project will recycle solid and organic waste generated by commercial use. The Project would comply with Chapter 19, Mandatory Recycling and Composting, of the San Francisco Environmental Code, which also requires recycling of solid and organic waste generated by residential uses. San Francisco Environmental Code, Chapter 19, Municipal Recycling and Composting is attached hereto as Exhibit C.

L. Information documenting a binding agreement between the project proponent and the lead agency establishing the requirements set forth in Public Resources Code sections 21183(e), (f), and (g).

This requirement was unchanged by AB 246. The Project conforms per the response provided on pages 15 and 16 of the October 2017 Application.

M. Any other information requested by the Governor

No additional information has been requested at this time.

Overall, we are pleased to request the first ELDP certification for a large-scale residential project in San Francisco, which will produce nearly 1,000 units of housing. Thank you and please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink, consisting of a large, stylized 'J' followed by a horizontal line that ends in a small hook.

Jim Abrams, esq.

Exhibit A
October 2017 Application

AB 900 Application

**for the
10 South Van Ness Mixed-use Project**

**Prepared for
10SVN, LLC**

October 2017

Prepared by



300 California Street, Suite 600
San Francisco, California 94104

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INTRODUCTION

The project sponsor, 10SVN, LLC, is submitting this application seeking certification of the 10 South Van Ness Mixed-use Project as an Environmental Leadership Development Project (ELDP) pursuant to Assembly Bill 900, Jobs and Economic Improvement through Environmental Leadership Act of 2011, and California Environmental Quality Act (CEQA) Section 21178 et seq. An ELDP is a project that does not result in any net greenhouse gas (GHG) emissions and achieves a 10 percent higher standard for transportation efficiency than comparable projects. This ELDP certification process is separate from the project's CEQA review process.

PROJECT DESCRIPTION

The project would encompass 1.17 acres located at 10 South Van Ness Avenue (project site – see project maps in Attachment A) at the southwest corner of S. Van Ness Avenue and Market Street in the Downtown/Civic Center neighborhood of San Francisco. The project would demolish an existing 91,088 gross square foot (gsf), two-story, 30- to 45-foot-tall auto dealership and service center. Two project design options are being considered for the 10 S. Van Ness property: the proposed two-tower project “proposed project” (a 1,071,095-gsf, 984-unit, 41-story, 420-foot-tall, mixed-use residential building with one below-grade structure consisting of a 2-level parking garage and two separate above-ground structures each consisting of a tower on top of a podium); and the single-tower variant “project variant” (a 1,072,989-gsf, 984-unit, 55-story, 590-foot-tall, mixed-use residential building with one below-grade structure consisting of a 2-level parking garage and one above-ground structure consisting of a tower on top of a pod).

As part of the proposed project or variant, 48,150 and 47,206 sf of usable open space would be provided through a combination of publically accessible open space, common useable open space and private. Under the proposed project, publicly accessible open space would include a 2,975-sf mid-block alley that would provide a pedestrian connection between S. Van Ness Avenue and 12th Street between the two tower podiums. Under the variant a mid-block alley would be located between Market Street and 12th Street.

The project variant would include the same parking/loading, mechanical equipment, vehicular circulation, TDM plan, streetscape improvements, and sustainability features as the proposed project. Given that the project variant would have the same program of development as the proposed project, the trip generation and travel demand would also be the same.

Streetscape Design

In addition to the proposed project and the project variant, a straight-shot streetscape design variant is being analyzed. The straight-shot streetscape variant would exceed the Market and Octavia Plan and San Francisco Planning Department streetscape standards by extending the eastern sidewalk and pedestrian promenade adjacent to 12th Street to 40 feet in width. The

straight-shot streetscape design could be developed with the proposed project or the project variant.

The San Francisco Building Code includes a chapter on Green Building Requirements; these requirements establish either Leadership in Energy and Environmental Design (LEED) certification levels or Green Point Rated system points for types of proposed residential and commercial buildings. The proposed project or variant would seek LEED silver certification, including measures applicable to both construction and operation, and would incorporate a number of sustainability features, including stormwater and rainwater collection features and a wastewater treatment system. The wastewater treatment system would be sized to treat and utilize recycled water from the proposed structure(s) for non-potable uses on the project site, including flushing toilets, irrigation, and make-up water for the HVAC system. The proposed project or variant would also result in a total of 33 net new street trees along the project site frontage(s).

STATUTORY REQUIREMENTS FOR CEQA STREAMLINING

The following information shows how the proposed project and variant satisfy the statutory requirements for the California Environmental Quality Act (CEQA) streamlining as further informed by the criteria set forth in the Governor's Guidelines for Streamlining Judicial Review under CEQA (Public Resources Code Section 21178 et seq.). As defined in Public Resources Code section 21180(b)(1), the project application provides the following information sufficient to enable the Governor to determine that:

(1) The project is residential, retail, commercial, sports, cultural, entertainment, or recreational in nature.

The proposed project or variant is residential and commercial/retail in nature. It is anticipated that the residential aspect of the proposed project or variant would provide residences for up to 2,155 end-users (residents) that currently live and work in San Francisco and/or the larger San Francisco Bay Area. The new proposed project or variant would also provide commercial retail uses on the ground floor for use by multiple tenants and serving public end-users (customers). The overall on-site activity is anticipated to increase due to redevelopment and provision of such residential and commercial facilities.

Residential facilities would be the largest type of use and would include 984 units comprised of 375 studios (347 under the variant), 461 1-bedroom units (449 under the variant), 100 2-bedroom units (166 under the variant), and 48 3-bedroom units (22 under the variant). Commercial facilities would be located on the ground floor and include a total of 10 retail spaces ranging from 800 to 11,600 square feet each for a total of approximately 30,000 square feet. Proposed site elevation plans for the proposed project or variant are included in Attachment A.

(2) The project, upon completion, will qualify for LEED silver certification. The application shall specify those design elements that make the project eligible for LEED silver certification, and the applicant shall submit a binding commitment to delay operating the project until it receives LEED silver certification. If, upon completion of construction, LEED silver certification is delayed as a result of the certification process rather than a project deficiency, the applicant may petition the Governor to approve project operation pending completion of the certification process.

The overall design for the proposed project or variant would meet or exceed current uniform codes designed to achieve a Leadership in Energy and Environmental Design (LEED) silver rating. The new tower(s) would include energy efficiency, water conservation, low-impact development, and other green-building practices, which would be incorporated into the final design to achieve a minimum LEED silver certification.

The LEED rating system offers four certification levels for new construction that correspond to the number of credits accrued in categories for location and transportation, sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, innovation, and regional priority (USGBC 2015). There are four levels of certification to acknowledge the degree of achievement. The number of points that the proposed project or variant earns determines the level of LEED certification that the proposed project or variant will receive:

- LEED Certified™: 40-49 points earned
- LEED Silver®: 50-59 points earned
- LEED Gold®: 60-79 points earned
- LEED Platinum®: 80+ points earned

LEED provides a level of flexibility for projects to choose the exact credits and project features. At the time of this application, the exact LEED credits and project features that would be selected to achieve LEED silver certification (i.e., 50-59 LEED points) have not yet been determined. However, some of the design features that are anticipated for contributing to achievement of LEED certification include:

- *Materials and Resources.* Credits for Construction and Demolition Waste Management. According to the Waste Management Plan, the proposed project or variant would recycle at least 75 percent of construction waste materials and is in accordance with State and City and County of San Francisco diversion targets that target a minimum of 75 percent of construction and demolition materials to be diverted from landfill disposal.
- *Location and Transportation.* Credits based on the proposed project or variant being located on a currently developed site with surrounding density and diverse land uses to promote walkability and transportation efficiency.

- *Location and Transportation.* Credits for access to high quality transit. Local transit service to the project area is provided by the San Francisco Municipal Transportation Agency (MUNI) in the form of above-ground trolley (light rail), below-ground light rail, and above-ground route bus services and by Bay Area Rapid Transit (BART) in the form of below-ground rail. The proposed project or variant would locate the functional entry of the project within a ¼-mile walking distance of existing trolley, light rail, and bus stops.
- *Energy and Atmosphere.* Credits for optimized performance and renewable energy production. The proposed project or variant would provide a minimum of 30 kilowatts of photovoltaic panels off-site or fund the purchase of carbon offsets as an alternative. The proposed project or variant would also require the following energy efficiency measures: Energy Star-labeled products and appliances, including dishwashers in the residential units, where appropriate; use of light emitting diode (LED) lighting or other energy-efficient lighting technologies, such as occupancy sensors or daylight harvesting and dimming controls, where appropriate, to reduce electricity use; controllable thermostats, operable windows in residential units, and mechanisms to allow for efficient indoor air management, where appropriate. Additional energy efficiency measures would focus on load reduction and HVAC-related strategies and would be analyzed during the design process.
- *Water Efficiency.* Credits for the use of ultra-low flow fixtures in the residential restrooms such as low flow faucets with aerators, dual flush toilets, and waterless urinals would reduce indoor water use by a minimum of 35 percent and would be required to meet Universal Plumbing Code standards. The use of Energy Star-labeled products and appliances, including dishwashers in the residential units, where appropriate, would further improve water efficiency. The proposed project or variant would reduce outdoor water use by a minimum of 50 percent from the calculated baseline at peak watering month by installing efficient irrigation. Furthermore, the project would install onsite water systems to treat and reuse available alternate water sources for toilet and urinal flushing and irrigation.

Because final LEED certification is not granted until a project is completed and operational, the project sponsor will petition the Governor to approve construction and project operation pending completion of the certification process, as permitted under Public Resources Code Section 21178 et seq.

(3) The project will achieve at least 10 percent greater transportation efficiency than comparable projects. The applicant shall provide information setting forth its basis for determining and evaluating comparable projects and their transportation efficiency, and how the project will achieve at least 10 percent greater transportation efficiency. For residential projects, the applicant shall also submit information demonstrating that the number of vehicle trips by residents divided by the number of residents is 10 percent

more efficient than for comparable projects. For the purposes of this provision, comparable means a project of the same size, capacity and location type.

The proposed project and variant are considered “infill” development, as it is replacing an existing auto dealership with a high-density, mixed-use residential and retail development. The project site is located along two major multimodal corridors, Market Street and South Van Ness Avenue. In the vicinity of the project site, the San Francisco *Better Streets Plan* identifies Market Street as a Ceremonial Street and South Van Ness as a Downtown Commercial Street. The proposed project or variant will therefore likely attract “chained trips” (existing trips that are passing by in the course of traveling to a separate destination).

The proposed project or variant would specifically include 491 residential automobile parking spaces, 14 retail automobile spaces, 6 car-share spaces, and 7 van and truck loading berths. The project would also provide approximately 336 Class 1 bicycle spaces in a single secure bicycle room on the ground floor (332 spaces for residential use and 4 spaces for retail use), as well as 61 Class 2 bicycle parking spaces (bicycle racks) located within the sidewalk right-of-way along Market Street, 12th Street, and South Van Ness Avenue.

There are six Muni bus routes, five Muni Metro light rail lines, and one street car line that traverse the project site, and generally operate along Mission Street, Van Ness Avenue/South Van Ness Avenue, and Market Street. Regional service is primarily provided by BART at the Civic Center BART Station (located approximately 0.4 miles from the project site), and the Muni light rail and bus stops located at the same Market and South Van Ness intersection as the project site provide connections (transfers) to the Civic Center BART Station and other regional transit providers, including AC Transit, Caltrain, SamTrans, and Golden Gate Transit. The project site is also located immediately adjacent to the planned Van Ness Avenue Bus Rapid Transit line (currently under construction) that will provide rapid bus service in dedicated transit lanes along the Van Ness/South Van Ness Avenue corridor.

Extensive multimodal options are available for accessing the project site. The project site is located within an established pedestrian network comprised of continuous sidewalks, curb ramps, and painted, high-visibility crosswalks at area intersections. Sidewalks adjacent to the project site along South Van Ness Avenue, Market Street, and 12th Street are between 15 and 25 feet wide. There is a Class II bicycle facility (a bike path with exclusive right-of-way for use by bicyclists or pedestrians) located on Market Street immediately adjacent to the project site frontage. Additionally, there are Class II bicycle facilities located along Valencia Street, McCoppin Street, Otis Street, 11th Street, 14th Street, Howard Street, Folsom Street, Harrison Street, Polk Street and Grove Street, and Class III bicycle facilities (signed bike routes that allow bicycles to share travel lanes with vehicles) located along Page Street, Octavia Boulevard, 10th Street, and Mission Street within the Project study area. There is a Bay Area Bike Share station located approximately 120 feet to the east of the project site, on the eastern sidewalk of South Van Ness Avenue, just south of Market Street.

Transportation Demand Management Plan

The project sponsor will take advantage of the project site's multimodal setting by implementing the following Transportation Demand Management (TDM) Program with the goal of minimizing the number of single-occupancy vehicle trips (SOV) generated by the project over its lifetime. The TDM Program targets a reduction in SOV trips by encouraging project residents and retail employees to select other modes of transportation, including: walking, bicycling, transit, car-share, carpooling and vanpooling. The project sponsor currently proposes the following TDM measures. It should be noted that these measures are subject to revision and will be coordinated with the San Francisco Planning Department at the time of project approval or issuance of required building permits.

PKG-1: Unbundle Parking

- Unbundle parking in a location where the non-residential neighborhood parking rate in the project vicinity is greater than 0.2 cars per unit and less than or equal to 0.6 vehicles per unit. The parking rate is 0.28 vehicles per unit in the SoMa neighborhood in which the project is situated.

ACTIVE-1: Improve Walking Conditions

- Complete streetscape improvements consistent with the *Better Streets Plan* and any local streetscape plan so that the public right-of-way is safe, accessible, convenient and attractive to persons walking by widening the sidewalk along the east side of 12th Street and providing sidewalk bulbouts along the east side of 12th Street to shorten crosswalk distances at intersections with Market Street and South Van Ness Avenue and reduce vehicle speed.

ACTIVE-2: Bicycle Parking

- For the proposed residential use, provide one Class I bicycle parking space for each bedroom and four Class II bicycle parking spaces for every 20 dwelling units. For the proposed retail use, provide one Class I bicycle parking space for every 1,875 square feet of occupied floor area, and three Class II bicycle parking spaces for every 750 square feet of occupied floor area. The project would provide 332 Class I and 49 Class II bicycle spaces for the residential use, and 4 Class I and 12 Class II bicycle spaces for the retail use, both of which meet City TDM requirements for Active-2, Option A.

ACTIVE-4: Bike Share Membership

- Proactively offer one complimentary bike share membership to each dwelling unit and/or employee at least once annually for the life of the project or a shorter period if a bike sharing program ceases to exist. If requested by resident or employee, pay for

memberships minimally equivalent to cost of one annual Bay Area Bike Share membership per dwelling unit and/or employee.

ACTIVE-5A: Bicycle Repair Station

- Provide on-site tools and space for bicycle repair. The project would provide this repair station within the Class I bicycle parking area in the Project basement.

ACTIVE-5B: Bicycle Repair Services

- Offer bicycle maintenance services to each dwelling unit and/or employee at least once annually. If requested, pay for bicycle maintenance services minimally equivalent to the cost of one annual bicycle tune-up per dwelling unit and/or employee. Maintenance services would be provided through an on-call bicycle mechanic, or through vouchers for nearby bicycle shops.

ACTIVE-6: Fleet of Bicycles

- Provide a fleet of bicycles for residents, visitors, and/or employees. Fleet equivalent to the number of Class II bicycle parking spaces required by the Planning Code. Provide a minimum of five bicycles. Ensure that bicycles are properly stored and maintained, and provide additional Class I bicycle parking to accommodate these bicycles. Provide secure and easily accessible bicycle room, as well as helmets, lights, locks, baskets, and other amenities to facilitate convenient use of fleet. Based on this measure, the project would provide a fleet of 61 bicycles within the Class I bicycle parking area in the Project basement.

CSHARE-1: Car-Share Parking

- Provide one car-share membership for each dwelling unit, and one car-share parking space for every 40 car-share memberships provided, with a minimum of three car-share parking spaces. Provide one car-share membership to each employee, and two car-share parking spaces for every 10,000 square feet of occupied floor area, with a minimum of three car-share parking spaces. To meet CSHARE-1, Option E, the project would provide 6 car-share spaces, to be located within the proposed second basement parking level.

DELIVERY-1: Delivery Supportive Amenities

- Facilitate delivery services by providing a staffed reception area for receipt of deliveries, and offering one of the following: (1) clothes lockers for delivery services, or (2) temporary storage for package deliveries, laundry deliveries, and other deliveries.

FAMILY-1: Family TDM Amenities

- Provide on-site secure location for storage of personal car seats, strollers, and cargo bicycles or other large bicycles. Provide one shopping cart for every 10 residential units and one cargo bicycle for every 20 dwelling units. Keep all equipment well maintained.

FAMILY-2: Delivery Supportive Amenities

- Include an on-site childcare facility to reduce commuting distances between households, places of employment, and childcare.

INFO-1: Multimodal Wayfinding Signage

- Provide multimodal wayfinding signage in key location to support access to transportation services and infrastructure, including: transit, bike share, car-share parking, bicycle parking and amenities (including repair stations and fleets), showers and lockers, taxi stands, and shuttle/carpool/vanpool pick-up/drop-off locations.

INFO-2: Real Time Transportation Information Displays

- Provide real time transportation information on displays in prominent locations within the Project site and buildings to highlight sustainable transportation options and support informed trip-making.

INFO-3: Tailored Transportation Marketing Services

- Provide individualized, tailored marketing and communication campaigns, including incentives to encourage use of sustainable transportation modes. Provide promotions and welcome packets, personal consultation for each new resident/employee, and request for commitment to try new transportation options. Conduct outreach to tenant employers on annual basis to encourage adoption of sustainable commute policies. Enroll tenants in trip tracking application and provide ongoing financial incentives to support shift to sustainable modes. Provide employers with access to expert consultation for help in developing new TDM policies.

Vehicle Trip Generation

For transportation efficiency analysis purposes, the project's vehicle trip generation (calculated with the *San Francisco Transportation Impact Analysis Guidelines*) was analyzed and compared against a comparable development situated in a less multimodal environment that allows for a less robust TDM program (calculated utilizing the *ITE Trip Generation Manual*).

PROJECT TRIPS PER SAN FRANCISCO TIA GUIDELINES

The *SF Guidelines* considers the weekday p.m. peak hour to be the most critical commute traffic period. **Table 1** presents the estimated daily and p.m. peak hour vehicle trips for the proposed

project. Vehicle trips were estimated by dividing the number of auto person-trips by the vehicle occupancy rates. As shown in the table, the project would generate approximately 2,904 daily vehicle trips and 445 p.m. peak hour vehicle trips (283 inbound and 167 outbound).

Table 1.– Project Vehicle Trip Generation Daily & PM Peak-Hour¹

Land Use	Size	Daily Vehicle Trips	PM Peak-Hour		
			Total	IN	Out
Residential					
2+ bedrooms	148 units	417	72	48	30
Studio/1 bedroom	836 units	1,767	306	205	101
Retail					
General	30,350 gsf	719	67	31	36
Total		2,903	445	284	167

Sources: 2009-2013 American Community Survey; *SF Guidelines*, October 2002; CHS Consulting Group, 2017

Comparable Project Vehicle Trip Generation

The vehicle trip generation was also analyzed for a comparable development in a less multimodal environment with fewer TDM measures utilizing the ITE *Trip Generation Manual* rates for a retail shopping center (ITE Land Use 820) and a high rise residential condominium development (ITE Land Use 232). As shown in **Table 2**, the comparable development would generate approximately 7,062 daily vehicle trips and 636 p.m. peak hour vehicle trips (357 inbound and 279 outbound).

Table 2.– Comparable Project Vehicle Trip Generation Daily & PM Peak-Hour

Land Use	Size	Daily Vehicle Trips	PM Peak Hour		
			In	Out	Total
Retail (ITE 820)	30,350 gsf ¹	3,129	140	146	286
Residential (ITE 232)	984 units	3,933	217	133	350
Total Comparable Project	--	7,062	357	279	636

Sources: ITE Trip Generation Manual, 2008; CHS Consulting Group, 2017

Comparison of Project and Comparable Development Trip Generation

As shown in **Table 3**, a comparison of the vehicle trip generation for the project and the comparable development demonstrates that the project would achieve a 59 percent decrease in daily vehicle trips and a 30 percent decrease in p.m. peak hour vehicle trips. The project would generate 2,903 daily vehicle trips and 445 vehicle trips during the p.m. peak hour, while the

comparable development would generate 7,062 daily vehicle trips and 636 vehicle trips during the p.m. peak hour.

Table 3.– Daily & Peak Hour Vehicle Trip Generation for Project & Comparable Development

Project	Land Use	Size	Daily Vehicle Trips	PM Peak Hour		
				In	Out	Total
Comparable Development	Retail (ITE 820)	30,350 gsf	3,129	140	146	286
	Residential (ITE 232)	984 units	3,933	217	133	350
	Total	--	7,062	357	279	636
Proposed Project	Retail (General)	30,350 gsf	719	31	36	67
	Residential	984 units	2,184	253	131	378
	Total	--	2,903	284	167	445
	Vehicle Trip Decrease	--	4,159	73	112	191
	Percent Decrease	--	59%	21%	40%	30%

Based on the comparison of the daily and p.m. peak hour vehicle trip generation for the project and the comparable development in a less multimodal environment with fewer TDM measures, the project would achieve greater than the 10 percent transportation efficiency required by ELDP guidelines.

Project Vehicle Miles Traveled (VMT)

The daily VMT output from the San Francisco County Transportation model for retail uses comes from a trip-based analysis, which counts VMT from individual trips to and from the project site. A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would over-estimate VMT.^{1,2}

For residential development, the regional average daily VMT per capita is 17.2.³ For retail development, regional average daily work-related VMT per employee is 14.9. Refer to **Table 4**, which includes the traffic analysis zone (TAZ) in which the project site is located, 578.

Table 4.– Daily Vehicle Miles Traveled Per Capita - Existing Conditions

Land Use	Bay Area		TAZ 578
	Regional	Regional	

¹ To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, then both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

² San Francisco Planning Department, Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A, March 3, 2016.

³ *Ibid.* Includes the VMT generated by the households in the development.

	Average	Average Minus 15%	
Households (Residential)	17.2	14.6	3.7
Employment (Retail)	14.9	12.6	8.9

Source: San Francisco Transportation Information Map (SF TIM), 2016

As shown in **Table 4** above, existing average daily VMT per capita for residential uses in TAZ 578 is 3.7 miles. This is approximately 78 percent below the existing regional average daily VMT per capita of 17.2. Also, as shown in **Table 4** above, existing average daily VMT per employee for retail uses in TAZ 578 is 8.9 miles. This is 40 percent below the existing regional average daily VMT per capita of 14.9.

Conclusion

The analysis of the project's transportation efficiency demonstrates that:

- A. The project is a high-density, mixed-use urban infill project located along two major multimodal travel corridors (Market Street and South Van Ness Avenue) that have amenities serving transit, bicyclists, and pedestrians;
- B. The project site affords extensive multimodal access, as it traversed by 12 existing rail and bus transit lines. The project site is located adjacent to and in close proximity to numerous Class II and Class III bicycle facilities, across the street from an existing Bay Area Bike Share station, and within a continuous pedestrian network. The project site is also immediately adjacent to the planned Van Ness Avenue BRT line currently under construction;
- C. The project would generate 59 percent fewer daily vehicle trips and 30 percent fewer vehicle trips during the p.m. peak hour when measured against a comparable development in a less multimodal environment with fewer TDM measures; and

Based on this analysis, the project is located in a TAZ with a per capita VMT of more than 10 percent and would result in more than 10 percent transportation efficiency, thereby meeting the ELDP requirements.

See Attachment B for the Project Variant Transportation Analysis Memo that indicates similar VMT results under the variant as under the proposed project.

(4) The project is located on an infill site, as defined at Public Resources Code section 21061.3, and in an urbanized area, as defined at Public Resources Code section 21071.

According to Public Resource Code 21061.3, an "infill site" is defined as a site in an urbanized area that meets either of the following criteria:

(a) The site has not been previously developed for urban uses and both of the following apply:

(1) the site is immediately adjacent to parcels that are developed with qualified urban uses, or at least 75 percent of the perimeter of the site adjoins parcels that are developed with qualified urban uses, and the remaining 25 percent of the site adjoins parcels that have previously been developed for qualified urban uses; and

(2) No parcel within the site has been created within the past 10 years unless the parcel was created as a result of the plan of a redevelopment agency.

(b) The site has been previously developed for qualified urban uses.

The Project meets the requirements of 21061.3(b), since the project site was previously developed for a qualified urban use. Existing land uses within the project site include the existing Honda auto dealership and service center and associated landscaping area at the southern end of the project site.

An urbanized area, according to Public Resources Code 21071, can be defined as an incorporated city that has a population of at least 100,000 persons. The project site is located in the City and County of San Francisco, which is an incorporated City with a population of approximately 870,000 people.

(5) The information required by Public Resources Code section 21180(b)(1) is available for projects within a metropolitan planning organization for which a sustainable communities strategy or alternative planning strategy is in effect. For the purposes of this provision, "in effect" means that the sustainable communities strategy or the alternative planning strategy has been adopted by the metropolitan planning organization, and that the Air Resources Board has accepted the metropolitan planning organization's determination that the sustainable communities strategy or alternative planning strategy meets the adopted greenhouse gas reduction targets and is not the subject of judicial challenge.

Senate Bill (SB) 375, signed in September 2008, aligns regional transportation planning efforts, regional greenhouse gas (GHG) reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or an Alternative Planning Strategy (APS), which will prescribe land use allocation in that MPO's Regional Transportation Plan (RTP). On September 23, 2010, ARB adopted regional GHG targets for passenger vehicles and light trucks for 2020 and 2035 for the 18 MPOs in California, including ABAG.

ABAG/MTC published the draft RTP/SCS (known as draft Plan Bay Area 2040) in 2010. On July 18, 2013, the ABAG Executive Board and MTC Commissioners adopted the final SCS and the Final Plan Bay Area 2040 was adopted on July 26, 2017. ABAG/MTC submitted the final Bay Area Plan containing the final SCS to ARB on January 6, 2014 and provided the final data table on February 18, 2014 in support of its GHG quantification determination of a 10 percent per capita carbon dioxide (CO₂) emission reductions from passenger vehicles by 2020 and a 16 percent per capita reduction by 2035. On April 10, 2014, ARB reviewed the published final RTP/SCS and approved Executive Order G-14-028, which indicated that ARB accepted ABAG's quantification of GHG emissions from the SCS. ARB determined that, if implemented, the SCS would achieve the reduction targets for the San Francisco Bay Area region in compliance with SB 375 (see Executive Order G-14-028 in Attachment C).

While ABAG/MTC's current GHG targets are per capita CO₂ emission reductions from passenger vehicles of 7 percent by 2020 and 15 percent per capita reduction by 2035 relative to 2005 levels, ABAG/MTC exceeded these targets by achieving 10 percent and 16 percent per capita reductions respectively. ARB is required to update the SB 375 GHG emissions reduction targets at least every 8 years and may revise them every four years.

(6) Information establishing that the requirements of Public Resources Code section 21181 have been met. Written acknowledgment from the lead agency of the applicant's intent to apply for certification may be used to satisfy this requirement.

Written acknowledgement regarding the intent to apply for certification was included in the Notice of Preparation of an EIR, which was received by the Governor's Office of Planning & Research CEQA State Clearinghouse on July 12, 2017. Written acknowledgment of the project sponsor's intent to apply for this certification is also included as Attachment D.

(7) Information establishing that the project entails a minimum investment of \$100 million in California through the time of completion of construction.

The proposed project or variant is a major high-rise development that would be one of the largest high-rise mixed-use residential development projects in San Francisco. The proposed project or variant would exceed \$300 million of invested capital as required by Public Resources Code section 21183(a). Based on anticipated project costs, the proposed project or variant would exceed the minimum investment requirement of \$100 million in Public Resources Code section 21183(a).

Independent of hard construction costs, the public benefits of the proposed project or variant to the City and County of San Francisco are estimated to be approximately \$98 million in direct impact fees, including \$33 million in infrastructure and community impact fees and \$65 million in inclusionary affordable housing fees.

(8) Information establishing that the prevailing and living wage requirements of Public Resources Code Section 21183(b) will be satisfied.

As required by Public Resources Code section 21183(b), all construction workers employed in the execution of the proposed project or variant will receive at least the general prevailing rate of per diem wages for the type of work and geographic area, as determined by the Director of Industrial Relations pursuant to Sections 1773 and 1773.9 of the Labor Code.

The proposed project or variant would create high-wage, highly skilled jobs that pay prevailing wages and living wages as required by Public Resources Code section 21183(b). The City and County of San Francisco Living Wage Ordinance is also required by San Francisco Municipal Code Section 12R. Furthermore, the City and County of San Francisco institutes a Labor Compliance Program for the purpose of implementing its policy relative to the labor compliance provisions of State and federally funded public works contracts. The State of California's Department of Industrial Relations approved the City's application for interim certification as a Labor Compliance Program, effective December 12, 2012. As a certified LCP, the City is obligated to enforce applicable Labor Code provisions and operates as a representative of the DIR in conducting investigations. This program is applicable to all public works projects that are designated as requiring prevailing wages and would be required for the proposed project or variant. The project sponsor will include this prevailing and living wage requirement in all contracts for the performance of the work. Thus, the proposed project or variant would meet the prevailing and living wage requirement. A copy of the current Municipal Code and Labor Compliance Program are included in Attachment E.

(9) Information establishing that the project will not result in any net additional greenhouse gas emissions. This information is subject to a determination signed by the Executive Officer of the Air Resources Board that the project does not result in any net additional greenhouse gas emissions, following the procedures set forth in section 6 of these Guidelines.

ARB recommends that documentation for the AB 900 application include baseline annual GHG emissions (baseline is considered to be the existing project site operational emissions in 2018 – the final year of existing operations), and the project's operational annual GHG emissions, including both direct and indirect GHG emissions. In addition, ARB requests quantification of GHG emissions for multiple years to determine when the proposed project would become GHG-neutral. As provided in more detail in Attachment F, the analysis includes GHG emissions for construction, electricity, natural gas, mobile, solid waste, water and wastewater, and area and stationary sources. Construction-related and operational emissions associated with typical construction activities, such as site grading, construction and demolition, were modeled using the California Emissions Estimator Model (CalEEMod), Version 2016.3.1.

The proposed project or variant would include energy efficiency, water conservation, low-impact development, and other green-building practices, which would be incorporated into the final design to achieve a minimum LEED silver rating. Energy conservation measures would also include the use of solar photovoltaic energy.

The proposed project or variant would also be developed to be Net Zero total energy increase as compared to the existing project site land uses. To help achieve this, 10SVN, LLC would provide a minimum of 30 kilowatts of photovoltaic panels off-site or fund the purchase of carbon offsets as an alternative. The proposed project or variant would also require the following energy efficiency measures: Energy Star-labeled products and appliances, including dishwashers in the residential units, where appropriate; use of light emitting diode (LED) lighting or other energy-efficient lighting technologies, such as occupancy sensors or daylight harvesting and dimming controls, where appropriate, to reduce electricity use; and controllable thermostats, operable windows in residential units, and mechanisms to allow for efficient indoor air management, where appropriate. Additional energy efficiency measures would focus on load reduction and HVAC-related strategies and would be analyzed during the design process. Other energy-saving measures include the use of LED lighting inside and outside the tower(s) and for the building signs and/or electronic billboards. A comprehensive energy control system would be included utilizing motion sensors and photocells to avoid over lighting. Furthermore, as stated in Attachment G, the proposed project or variant would contract with the SFPUC to provide electrical power sourced from 100% renewable energy.

Construction-related GHG emissions were estimated at an annual maximum of 2,189 MT CO₂e per year during 2019, and 5,395 MT CO₂e over the entire 4-year construction period. Operation of the project in 2023 and 2024 (first two years of solely operational emissions) would result in a net annual increase of 2,617 and 2,565 MT CO₂e from baseline conditions. As shown in Attachment F, the project would result in a net increase of 69,981 MT CO₂e through the year 2052. Since qualifying projects cannot result in a net increase of GHG emissions, the proposed project or variant would be required to purchase voluntary carbon credits and this would be a condition of the project's development permits to ensure enforceability. One or more contracts shall be executed to purchase voluntary carbon credits from a verified GHG emissions credit broker in an amount sufficient to offset construction and operational GHG emissions over the lifetime of the project. This measure will become effective after final approval and certification of the AB 900 application by the Governor's office.

(10) Information documenting a binding agreement between the project proponent and the lead agency establishing the requirements set forth in Public Resources Code sections 21183(d), (e), and (f).

Written acknowledgement from the project sponsor regarding Public Resources Code section 21183(d), (e), and (f) is included as Attachment D. The project sponsor's intent to apply for this

certification was also included in the Notice of Preparation of an EIR, which was received by the Governor's Office of Planning & Research CEQA State Clearinghouse on July 12, 2017.

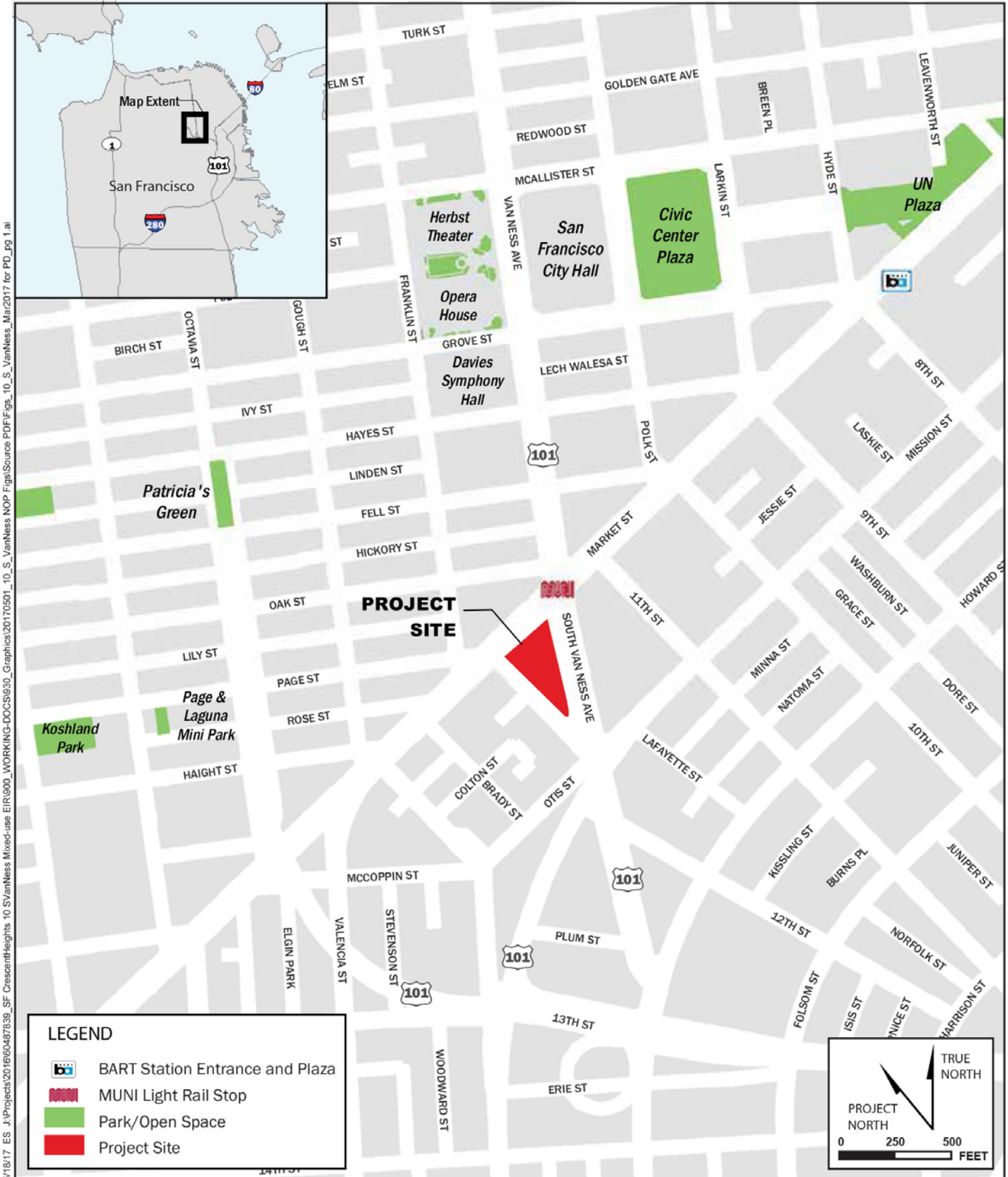
(11) Any other information requested by the Governor.

No additional information has been requested at this time.

Attachment A

Project Maps

Attachment A-1 Project Location and Vicinity Map



Attachment A-2 Project Site

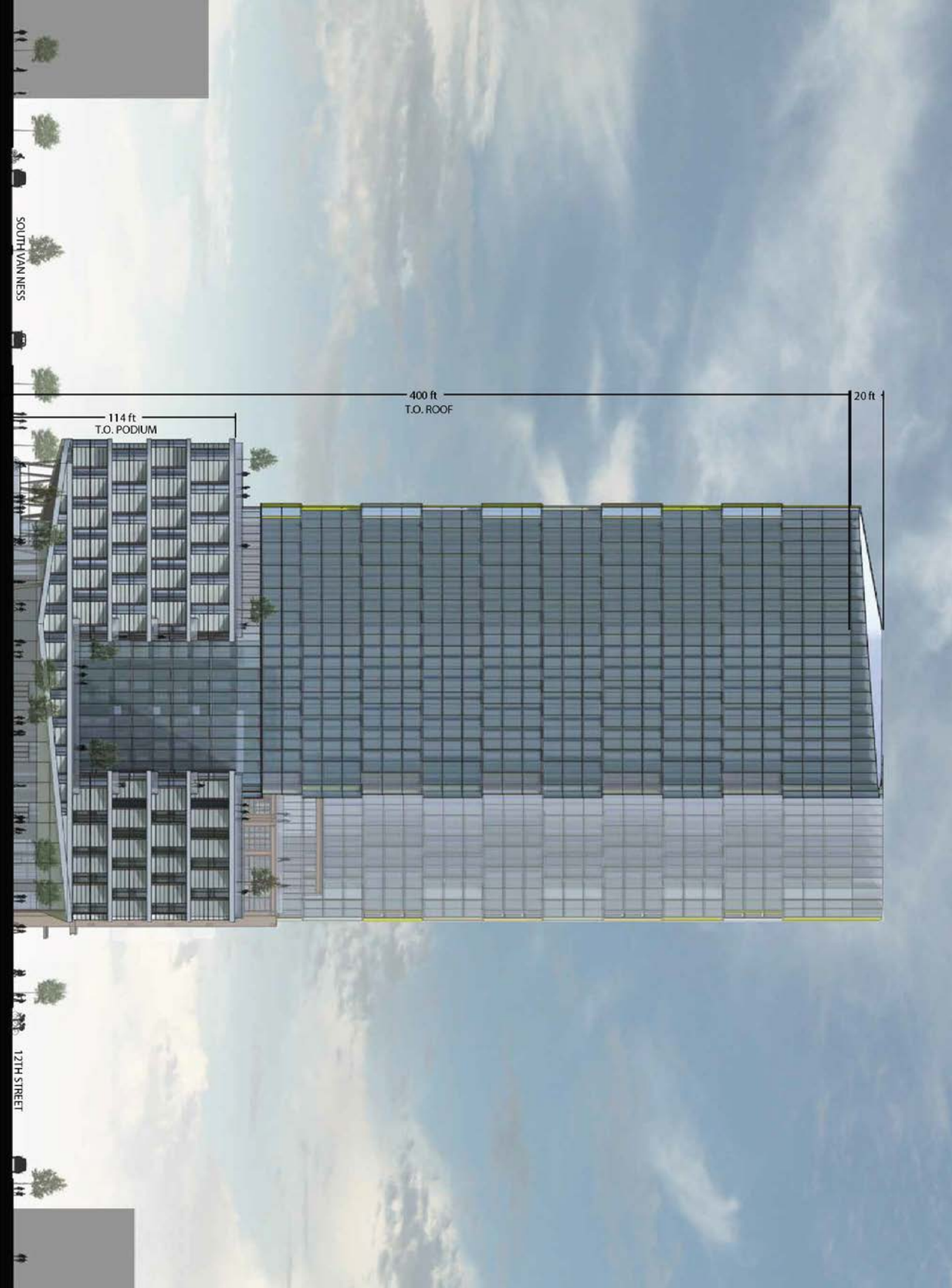


Attachment A-3 Proposed Project Elevations



Source: 10 SVN LLC, 2017

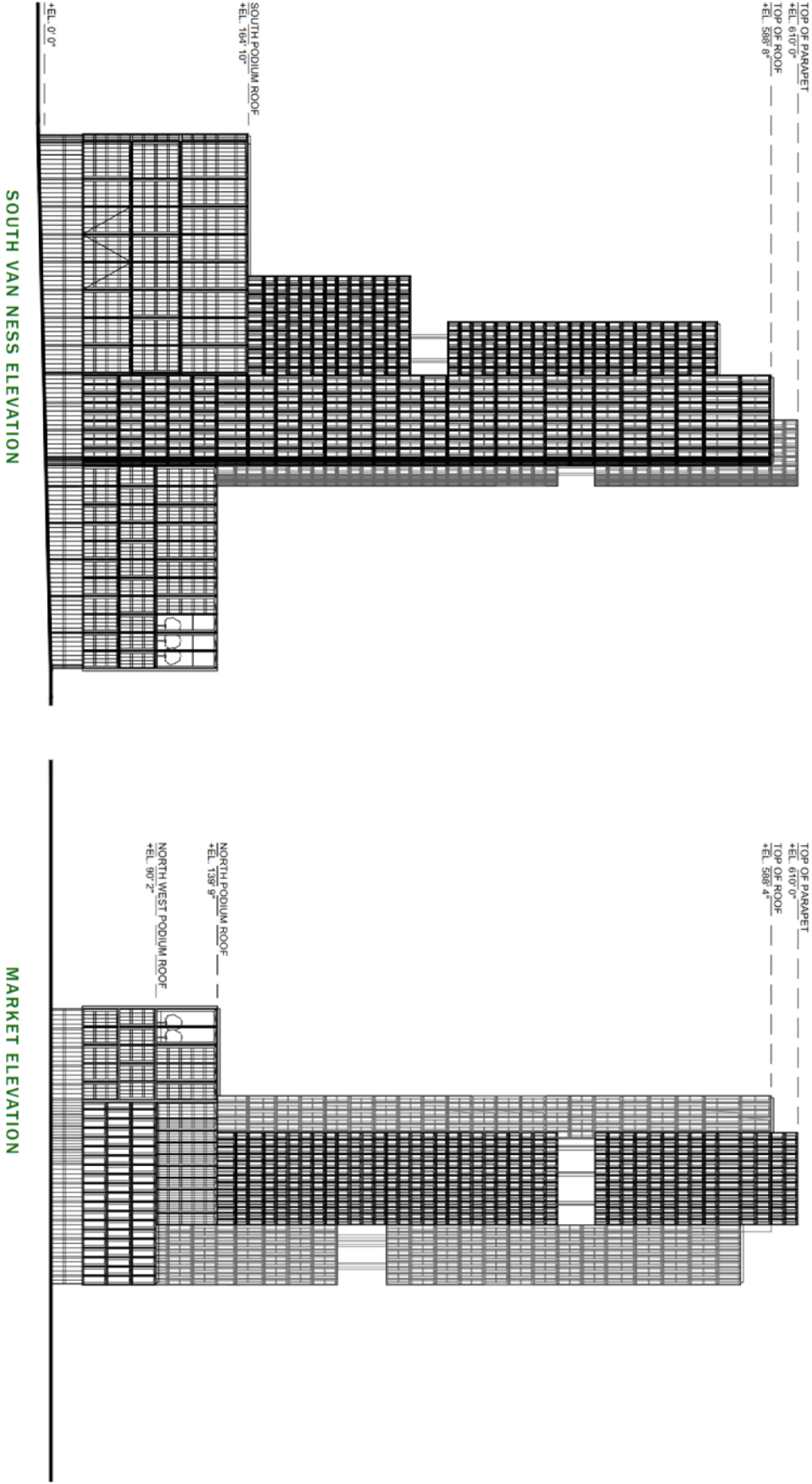
Proposed Project – Building Elevation Looking West toward Project Site from South Van Ness Avenue



Source: 10 SVN LLC, 2017

Proposed Project – Building Elevation Looking South Toward Project Site from Market Street

ELEVATIONS



Attachment B

TIS Project Variant Memo



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Memorandum

Date: June 21, 2017
To: Rachel Schuett, San Francisco Planning Department
From: Andrew Kluter, CHS Consulting Group
Charles Felder, CHS Consulting Group
Re: **10 South Van Ness Avenue Variant - Draft Memorandum**

The purpose of this technical memorandum is to present the proposed variant (herein referred to as the "Variant") for the mixed-use residential development located at 10 South Van Ness Avenue in San Francisco (herein referred to as the "Project"). As impacts would be the same under both the Project and the Variant scenarios, this memo qualitatively discusses the Variant impacts in comparison to the Project.

Variant Description

As with the Project, the Variant site is located at 10 South Van Ness Avenue in San Francisco's Market-Octavia District and includes a 1.17 acre (51,150 square feet) triangular-shaped lot, consisting of Lots 004 and 003A on Assessor's Block 3506. The Variant site is bounded by 12th Street to the west, Van Ness Avenue to the south/east, and Market Street to north. The Variant site is currently occupied with one, one to two-story building containing a total of approximately 50,000 square feet of commercial use. The existing structure located at 10 South Van Ness Avenue is a Honda auto dealership. The Variant site is approximately 51,150 square feet (about 1.17 acres). It is located within the Downtown General Commercial District (C-3-G), San Francisco Superdistrict 3, and the Van Ness and Market Downtown Residential Special Use District and within the 120/400-R-2 height and bulk district.

The Variant would demolish the existing uses on the Variant site. The Variant would construct a 55-story mixed-use building with approximately 30,450 gross square feet of ground-floor retail use, up to 984 dwelling units totaling approximately 935,250 gross square feet, approximately 101,992 gross square feet of parking spaces dedicated for 491 residential automobile spaces, 14 retail automobile spaces, 6 carshare spaces, seven (7) van and truck loading berths, 336 Class I bicycle parking spaces (332 for residential use, 4 for retail use) on the ground floor, and building services at the ground floor and basement levels.

The Variant would contain approximately 1,072,989 gross square feet of floor area, with a building height of up to 590 feet in height, excluding mechanical, stair and elevator penthouses. The Variant proposes one mixed-use building that would hold approximately 1,090 linear feet of the street wall fronting Market Street, 12th Street, and South Van Ness Avenue. The residential lobby would be accessed off South Van Ness Avenue. The proposed project is comprised of approximately 347 studio units, 449 one-bedroom units, 166 two-bedroom units, and 22 three-bedroom units, located above the ground floor. The ground floor is proposed to have a minimum of 15 feet floor-to-floor height and includes approximately 30,450 gross square feet of retail use, one residential lobby, a midblock pedestrian alleyway, and two (2) Class I bicycle parking rooms. The bicycle rooms would be accessed via a secured door from the midblock alley and by hallway from the residential elevator lobby. Sixty-one (61) Class 2

bicycle parking spaces (bicycle racks) would be located within the sidewalk right-of-way along Market Street, 12th Street, and South Van Ness Avenue.

The Variant would provide the same parking arrangement as the Project, including a two-level underground parking garage totaling approximately 51,000 square feet on each level and up to 491 residential parking spaces, 14 retail parking spaces, six (6) car-share spaces, three truck loading berths, and four (4) van loading spaces. All parking would be unbundled as required under the *Planning Code*. Vehicular ingress and egress would occur along 12th Street via a 20-foot-wide curb cut. The proposed driveway off of 12th Street would be the same width as the curb cut, and would include two 10-foot-wide lanes for two-way (bi-directional) vehicle flow. The entrance/exit point of the parking garage would be secured with a high-speed perforated metal coiling door or a swinging door. The internal ramp would be 20-feet wide with a 14-foot vertical clearance, a 16 percent slope with eight (8) percent blends, and two travel lanes (one inbound lane and one outbound lane). The building owner would provide 24-hour valet service within the on-site garage ramp to manage resident and employee parking maneuvers within the building, which would minimize internal vehicle queues within the garage ramps and minimize potential vehicle back-ups on 12th Street.

Under the Variant, the off-street loading provision would be the same as under the Project. Three (3) off-street loading docks would be located in a designated freight loading area on the first level of the underground parking garage. One (1) loading berth would be approximately 12 feet wide and 45 feet long, and two loading berths would be approximately 12 feet wide and 35 feet long (in compliance with the dimensional requirements of Planning Code Section 154) and would be positioned in front of the proposed trash room just north of the north tower core. The loading berths would accommodate Recology vehicles, large freight delivery vehicles, and residential move-in/move-out vehicles. Larger vehicles (i.e. moving vans exceeding 12 feet in width and 45 feet in length) would not be permitted to use the on-site loading berths in the underground parking garage, and would need to use the proposed on-street commercial loading zones along the project frontage on South Van Ness Avenue or 12th Street. Larger freight/delivery vehicles or residential move-in/move-out vehicles would coordinate with building management to utilize the on-street commercial loading spaces during off-peak hours. The garage level loading spaces would be designated for freight/delivery activities for the residential and retail uses and would also be used for garbage pick-up activities and residential move-in/move-out activities. Four additional van loading spaces would be located on the second level of the underground parking garage and would be approximately eight (8) feet wide and 20 feet long with a minimum clearance of 8 feet and two inches. The four van loading spaces would be used for residential and retail loading and delivery activities when smaller vehicles are used. Moving operations would not be permitted along adjacent streets without coordination and approval from the San Francisco Municipal Transportation Agency (SFMTA) and building management.

Residents would use designated garbage chutes (e.g., tri-sorter trash chutes¹) to dispose of their waste and recyclable materials; these chutes would be located in the hallways on each building floor. The residential trash room would be located in a designated area on the first level of the underground garage. Building management would take the full trash cans from the garbage chute rooms, replace them with empty ones, then take the full trash cans to the underground garage freight loading area and empty them into the appropriate compactors. Recology vehicles would enter the garage for the loading dock spaces in the freight loading area to retrieve the compactor or bins and empty the compactor/bins inside the loading dock. After trash and related materials have

¹Tri-sorter garage systems are typical in high-rise residential buildings and are designed to automatically direct residents' materials into one of the existing recycling, waste, and organic containers.

been collected, Recology vehicles would then exit onto 12th Street. For the retail spaces, future tenants would manage their own trash, including staging, and would be required to arrange service with Recology. It is assumed that retail tenants would be permitted to use the underground garage trash room and no separate trash room for retail tenants is proposed. Any staging of trash containers by retail tenants would be within the loading dock area and would not be permitted along sidewalks or along adjacent roadways. Collection days for the residential and retail uses at the project site would be scheduled and coordinated with Recology.

Primary Transportation-Related Differences Between Project & Variant

The most significant differences between the Variant and the Project are listed below (see **Table 1** for complete comparison between the Project and the Variant):

- The Variant's ground floor commercial use has approximately 100 gross square feet more than the project; and
- The Variant has the same number of dwelling units (984) as the Project, but the Variant has 28 fewer studio units, 12 fewer 1-bedroom units, 66 more 2-bedroom units, and 26 fewer 3-bedroom units than the Project

The Variant would provide the same number of bicycle spaces (336 Class I spaces, 61 Class II spaces) and on-site vehicle parking spaces (518) as the Project, and would provide the same streetscape design alternatives for 12th Street and South Van Ness Avenue as provided under the Project (see **Table 1** below).

Table 1: Proposed Project & Variant Comparison

Lot	Dimensions			Difference
	Project (Two Towers)		Variant (Single Tower)	
Size	51,150 square feet			-
Length	475 feet (South Van Ness Avenue)/288 feet (Market Street)/450 feet (12th Street)			-
Proposed Building	Area (gsf)			
Residential ¹	935,745		935,250	-495
Ground Floor Commercial (Retail)	30,350		30,450	+100
Parking ²	102,000		101,992	-8
Rooftop Mechanical	3,000		5,297	+2,297
Total	1,071,095		1,072,989	+1,894
Building Characteristics	Description			Difference
Stories	North Tower/Podium	41 stories/12 stories	55 stories/15 stories (Tower/Podium)	+14/+3
	South Tower/Podium	42 stories/12 stories		
Height	North Tower/Podium	400 feet (up to 420 feet inclusive of elevator penthouse)	590 feet (up to 610 feet inclusive of elevator penthouse ³)	+190
	South Tower/Podium	400 feet (up to 420 feet inclusive of elevator penthouse)		
Ground Floor	Retail: 30,350 gsf multiple tenant spaces Residential: 2 residential lobbies, and 336 Class I bicycle parking spaces		Retail: 30,450 gsf multiple tenant spaces Residential: 1 residential lobby, and 336 Class I bicycle parking spaces	-
Basement	518 vehicle parking spaces		518 vehicle parking spaces	-
Proposed Units	Amount (Approximate Percent)			Difference
Dwelling Units	984			-
	North Tower	South Tower	Total	
Studio	267 (27%)	108 (11%)	375 (38%)	-28
1-Bedroom	294 (30%)	167 (17%)	461 (47%)	-12
2-Bedroom	51 (5%)	49 (5%)	100 (10%)	+66
3-Bedroom	19 (2%)	29 (3%)	48 (5%)	-26
Vehicle Parking Spaces ⁴	518		518	-
Bicycle Parking Spaces ⁵	397		397	-
Open Space ⁶	Area (sf)			Difference
Publicly-accessible	2,975		12,091	+9,116
Common	45,175		25,565	-19,610
Private	0		9,550	+9,550
Source: 10 South Van Ness LLC, 2017.				
Notes:				
1. Includes first-floor non-retail uses and second-floor residential amenity uses.				
2. Includes parking and basement mechanical equipment				
3. The Planning Code Height and Bulk designations for the project site exempt elevator penthouse, roof screens, and other rooftop appurtenances from height limits				
4. Vehicle parking spaces: 491 for residential use, 14 for retail use, six for car-share, seven for off-street loading				
5. Bicycle parking spaces: 336 Class I bicycle parking spaces on the ground floor, 61 Class II bicycle parking spaces in on-street bicycle corrals.				
6. Provided in compliance with Planning Code section 736.93 Usable Open Space Per Residential Unit				

Traffic Impacts

The Variant would revise the provision of dwelling units (40 more 2- and 3-bedroom units, 40 fewer studio and 1-bedroom units) and increase the ground floor commercial retail use by 100 square feet. Based on these changes, the Variant would generate 2,934 total daily vehicle trips, which is 30 more daily vehicle trips than under the

Project. Of the 2,934 daily vehicle trips, approximately 450 vehicle trips (287 inbound and 163 outbound) would occur during the p.m. peak hour, which is an increase of five (5) vehicle trips from the Project's vehicle trip generation.

The increase of five (5) vehicle trips to a total of 450 vehicle trips during the p.m. peak hour under the Variant represents a 1 percent increase in vehicle trips over the Project's p.m. peak hour vehicle trips. The Variant's 287 inbound vehicle trips during the p.m. peak hour would result in approximately five inbound vehicle trips per minute. Based on the current capacity of the southbound and northbound traffic lanes on 12th Street from the nearby intersections at Market Street and South Van Ness Avenue to the Variant's parking garage entrance on 12th Street, the estimated number of the Variant's inbound vehicle trips during the p.m. peak hour would be accommodated along 12th Street. Therefore, as with the Project, the trips generated by the Variant would not result in substantial vehicle queues and/or blocking of 12th Street, and would not result in any potential vehicle spillback along 12th Street to the nearby intersections at Market Street or South Van Ness Avenue. As with the Project, the Variant would not conflict with vehicles, pedestrians, or bicyclists, and impacts to traffic would continue to be less-than-significant.

Vehicle Miles Traveled Impacts

Based on the traffic analysis zone (TAZ) in which the Variant is located, and due to the Variant's trip generation, the vehicle miles traveled (VMT) for the Variant would remain more than 15 percent below the existing regional average. Therefore, as with the Project, the Variant would not result in substantial additional VMT and impacts would continue to be less-than-significant.

Transit Impacts

Based on the Variant's revisions to the dwelling unit provision and the increase in the square footage to ground floor commercial retail use, the Variant would generate 3,791 total daily vehicle trips, which is 41 more daily vehicle trips than under the Project. Of the 3,791 daily vehicle trips, approximately 591 vehicle trips would occur during the p.m. peak hour, which is an increase of six (6) transit trips from the Project's transit trip generation during the p.m. peak hour. Of the Variant's additional six (6) p.m. peak hour transit trips, only one (1) would cross local screenlines, while there would be no increase in transit trips across regional screenlines. Relative to the Project, the Variant would result in one (1) more transit trip across Muni's Northeast screenline, which currently operates at 67 percent capacity utilization during the p.m. peak hour (18 percentage points below Muni's capacity utilization threshold standard of 85 percent). As with the Project, the Variant's transit trip generation would not substantially affect the capacity utilization of the local and regional transit lines, and would not affect the operations of the adjacent and nearby bus transit routes. Therefore, under the Variant, the impacts on transit would continue to be less-than-significant.

Pedestrian Impacts

Based on the Variant's revisions to the dwelling unit provision and the increase in the square footage to ground floor commercial retail use, the Variant would generate 3,143 total daily walking trips, which is 21 more daily vehicle trips than under the Project. Of the 3,143 daily walking trips, approximately 380 walking trips would occur during the p.m. peak hour, which is an increase of three (3) walking trips from the Project's walking trip generation during the p.m. peak hour. The three (3) additional walking trips represent less than a 1 percent in walking trips during the p.m. peak hour. As with the Project, the Variant's walking trip generation would not result in an increase in the amount of overcrowding on public sidewalks. Therefore, under the Variant, pedestrian impacts would continue to be less-than-significant.

Bicycle Impacts

Based on the Variant's revisions to the dwelling unit provision and the increase in the square footage to ground floor commercial retail use, the Variant would generate 1,956 total daily "other" trips (assumed to be bicycle trips), which is 19 more daily "other" trips than under the Project. Of the 1,956 daily "other" trips, approximately 295 "other" trips would occur during the p.m. peak hour, which is an increase of three (3) "other" trips from the Project's "other" trip generation during the p.m. peak hour. The three (3) additional "other" trips represent an increase of approximately 1 percent in "other" trips during the p.m. peak hour. As with the Project, the Variant's "other" trip generation would be accommodated by existing bicycle network facilities. Therefore, under the Variant, bicycle impacts would continue to be less-than-significant.

Emergency Access

Emergency access to the Variant would not differ from emergency access plans for the Project. Therefore, the Variant's impact to emergency vehicle access would continue to be less-than-significant.

Loading Impacts

The Variant would have the same loading demand and loading requirements as the Project. As the Variant would assume the same loading area and provision of spaces as the Project, the Variant loading impacts would continue to be less-than-significant.

Construction Impacts

The Variant construction plan would be the same as the Project's construction plan with respect to the Variant's construction timeline, phasing, and duration. The number of construction workers and truck trips would also be approximately the same under the Variant construction plan. Therefore, the Variant construction impacts would continue to be less-than-significant.

Streetscape Impacts

The Variant would implement one of the same two 12th Street streetscape design alternatives presented for the Project, such that there would be no difference between the Project streetscape plan and the Variant's streetscape plan. Therefore, as with the Project, the Variant's streetscape impacts would continue to be less-than-significant.

CHS appreciates this opportunity to provide you with this transportation variant memo for the proposed 10 South Van Ness mixed-use residential development in San Francisco. Should you have any questions concerning the analysis and conclusions of this memo, please call us at (415)579-9059 or (415)579-9063, or email us at akluter@chsconsulting.net or cfelder@chsconsulting.net. Thank you.

Attachment C

ARB Executive Order

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER G-14-028

Association of Bay Area Governments' (ABAG) and
Metropolitan Transportation Commission's (MTC)
Sustainable Communities Strategy (SCS)
ARB Acceptance of GHG Quantification Determination

WHEREAS, the Sustainable Communities and Climate Protection Act of 2008 ((Chap. 728, Stats. 2008) Senate Bill 375, or SB 375, as amended) requires each California Metropolitan Planning Organization (MPO), as part of its Regional Transportation Plan (RTP) planning process, to develop a Sustainable Communities Strategy (SCS) or an Alternative Planning Strategy (APS) that meets regional greenhouse gas (GHG) emission reduction targets (targets) set by the Air Resources Board (ARB or Board);

WHEREAS, SB 375 also recognizes ARB's target-setting responsibility as a recurring process, requiring ARB to update the targets every eight years and permitting target updates every four years;

WHEREAS, on September 23, 2010, the Board set targets for the ABAG/MTC region of 7 percent per capita reduction from 2005 by 2020, and 15 percent per capita reduction from 2005 by 2035;

WHEREAS, in March 2013, ABAG/MTC published a draft Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), known as Plan Bay Area, for 2040 that stated it would achieve the region's GHG targets with a 10 percent per capita reduction from 2005 by 2020 and a 16 percent per capita reduction from 2005 by 2035;

WHEREAS, ARB staff performed a technical evaluation of the SCS in the draft Plan Bay Area based on ARB's technical methodology for evaluating an SCS (published in July 2011);

WHEREAS, ARB staff's evaluation showed that ABAG/MTC used technical methodologies that would accurately quantify GHG reductions from the SCS in the draft Plan Bay Area;

WHEREAS, ARB staff evaluated key performance indicators that support ABAG/MTC's determination that the SCS in the draft Plan Bay Area would achieve the region's GHG targets;

WHEREAS, ARB staff's evaluation showed that ABAG/MTC's SCS in the draft Plan Bay Area, if implemented, would meet the GHG targets that the Board established for the region for 2020 and 2035;

WHEREAS, ARB staff presented an informational item on ABAG/MTC's SCS to the Board at its June 27, 2013 public meeting;

WHEREAS, during the public discussion of this item at its June 2013 meeting, the Board acknowledged that several of Plan Bay Area's Climate Policy Initiatives will provide useful data for future analysis;

WHEREAS, in response to comments from the public, stakeholders, ABAG Executive Board members, and MTC Commissioners, ABAG/MTC staff made minor modifications to the draft Plan Bay Area which did not significantly change the GHG emission reduction results;

WHEREAS, these proposed changes were presented at public meetings held by ABAG/MTC on June 14, 2013 and July 12, 2013;

WHEREAS, the ABAG Executive Board and MTC Commissioners adopted the final Plan Bay Area as revised at its public meeting on July 18, 2013;

WHEREAS, ABAG/MTC submitted the final Plan Bay Area containing the final SCS to ARB on January 6, 2014 and provided the final data table on February 18, 2014 in support of its GHG quantification determination of a 10 percent per capita reduction by 2020 and a 16 percent per capita reduction by 2035, as required by California Government Code section 65080(b)(2)(J)(ii);

WHEREAS, ARB staff reviewed both the draft SCS and subsequent modifications to the SCS contained in the adopted 2013-2040 Plan Bay Area;

WHEREAS, the modifications adopted by the ABAG Executive Board and MTC Commissioners as part of the final Plan Bay Area are minor, and do not change the underlying technical land use and transportation assumptions of the SCS or its GHG quantification methodology, and does not significantly change the GHG reduction results demonstrated by the draft SCS for 2020 and 2035;

WHEREAS, ARB staff's technical review of ABAG/MTC's GHG reduction quantification is contained in Attachment A, "Technical Evaluation of Greenhouse Gas Emissions Reduction Quantification for the Association of Bay Area Governments' and Metropolitan Transportation Commission's SB 375 Sustainable Communities Strategy" dated April 2014;


WHEREAS, section 65080(b)(2)(J)(ii) of the California Government Code calls for ARB to accept or reject the MPO's determination that the strategy submitted would, if implemented, achieve the GHG emission reduction targets established by the Board;

WHEREAS, the California Health and Safety Code sections 39515 and 39516 delegate to the Board's Executive Officer the authority to act on behalf of the Board in this manner;

NOW, THEREFORE, BE IT RESOLVED that pursuant to section 65080(b)(2)(J)(ii) of the California Government Code, the Executive Officer hereby accepts ABAG/MTC's quantification of GHG emissions reductions from the final SCS adopted by the ABAG Executive Board and MTC Commissioners on July 18, 2013, and the MPO's determination that the SCS would, if implemented, achieve the 2020 and 2035 GHG emission reduction targets established by ARB.

NOW, THEREFORE, IT IS ORDERED that ARB staff is directed to forward this executive order to the ABAG Executive Board, the MTC Commission, and the ABAG and MTC Executive Directors.

Executed at Sacramento, California, this 10th day of April 2014.



Richard W. Corey
Executive Officer

Attachment A:

"Technical Evaluation of Greenhouse Gas Emissions Reduction Quantification for the Association of Bay Area Governments' and Metropolitan Transportation Commission's SB 375 Sustainable Communities Strategy" April 2014

Attachment D

Letter from Project Sponsor

September 11, 2017

John S. Rahaim, Planning Director
San Francisco Planning Department
1650 Mission Street, Suite 400
San Francisco, CA 94103-2479

Re: 10 South Van Ness Mixed-Use Project: Acknowledgment of Obligations under Public Resources
Code Sections 21183(d), (e), and (f)

Dear Mr. Rahaim:

As you are aware, 10 SVN, LLC (“Applicant”) has applied to the Governor of California to request certification of the 10 South Van Ness Mixed-Use Project (the “Project”) as a Leadership Project subjected to streamlined environmental review pursuant to the Jobs and Economic Improvement through Environmental Leadership Act of 2011 (the “Act”), California Public Resources Code Section 21178 et seq., as amended by SB 763 and AB 734. By this letter, Applicant acknowledges and agrees to its obligations under the Act, as set forth in Public Resources Code Sections 21183(d), (e), and (f).

As required by Public Resources Code Section 21183(d), Applicant agrees that all mitigation measures required pursuant to CEQA to certify the Project under the Act shall be conditions of approval, and those conditions will be fully enforceable by the City of San Francisco (the “City”) or another agency designated by the City. Applicant agrees that all environmental mitigation measures required to certify the Project under the Act will be monitored and enforced by the City for the life of the obligation.

As required by Public Resources Code Section 21183(e), Applicant agrees to pay the costs of the Court of Appeal in hearing and deciding any case, including payment of the costs for the appointment of a special master if deemed appropriate by the court, in a form and manner specified by the Judicial Council, as provided in the Rules of Court adopted by the Judicial Council pursuant to the Act.

As required by Public Resources Code Section 21183(f), Applicant agrees to pay the costs of preparing the administrative record for the Project, in a form and manner specified by the City, concurrent with review and consideration of the Project pursuant to CEQA and the Act.

Sincerely,

10 SVN, LLC
a Delaware limited liability company

By: 
Name: Adam Tartakovsky
Title: Vice President

Acknowledged and agreed:

Name:
Title:

Attachment E

Municipal Code and Labor Compliance Program

San Francisco Administrative Code

CHAPTER 12R: MINIMUM WAGE

Sec. 12R.1.	Title.
Sec. 12R.2.	Authority.
Sec. 12R.3.	Definitions.
Sec. 12R.4.	Minimum Wage.
Sec. 12R.5.	Notice, Posting and Payroll Records.
Sec. 12R.6.	Retaliation Prohibited.
Sec. 12R.7.	Implementation and Enforcement.
Sec. 12R.8.	Waiver Through Collective Bargaining.
Sec. 12R.9.	Relationship to Other Requirements.
Sec. 12R.10.	Application of Minimum Wage to Welfare-to-Work Programs.
Sec. 12R.11.	Operative Date.
Sec. 12R.12.	Severability.
Sec. 12R.13.	Amendment by the Board of Supervisors.
Sec. 12R.14.	Civil Actions.
Sec. 12R.15.	Remedies Cumulative.
Sec. 12R.16.	Administrative Penalties and Citations.
Sec. 12R.17.	Violations.
Sec. 12R.18.	Administrative Citation; Notice of Violation.
Sec. 12R.19.	Administrative Citation and Notice of Violation; Service.
Sec. 12R.20.	Administrative Citation; Contents.
Sec. 12R.21.	Administrative Appeal.
Sec. 12R.22.	Regulations.
Sec. 12R.23.	Judicial Review.
Sec. 12R.24.	Other Remedies Not Affected.
Sec. 12R.25.	Outreach.
Sec. 12R.26.	Reports.

SEC. 12R.1. TITLE.

This Chapter shall be known as the "Minimum Wage Ordinance."

(Added by Proposition L, 11/4/2003)

SEC. 12R.2. AUTHORITY.

This Chapter is adopted pursuant to the powers vested in the City and County of San Francisco ("the City") under the laws and Constitution of the State of California and the City Charter including, but not

limited to, the police powers vested in the City pursuant to Article XI, Section 7 of the California Constitution and Section 1205(b) of the California Labor Law.

(Added by Proposition L, 11/4/2003)

SEC. 12R.3. DEFINITIONS.

As used in this Chapter, the following capitalized terms shall have the following meanings:

"Agency" shall mean the Office of Labor Standards Enforcement or its successor agency.

"City" shall mean the City and County of San Francisco.

"Employee" shall mean any person who:

(a) In a particular week performs at least two (2) hours of work for an Employer within the geographic boundaries of the City; and

(b) Qualifies as an employee entitled to payment of a minimum wage from any employer under the California minimum wage law, as provided under Section 1197 of the California Labor Code and wage orders published by the California Industrial Welfare Commission, or is a participant in a Welfare-to-Work Program.

"Employer" shall mean any person, as defined in Section 18 of the California Labor Code, including corporate officers or executives, who directly or indirectly or through an agent any other person, including through the services of a temporary services or staffing agency or similar entity, employs or exercises control over the wages, hours or working conditions of any Employee. "Employer" shall include the City and the San Francisco In-Home Supportive Services Public Authority.

"Government Supported Employee" shall mean any Employee who is: (1) under the age of 18 and is employed as an after-school or summer Employee in a bona fide training or apprenticeship program in a position that is subsidized by the federal, state, or local government; or (2) over the age 55 and is employed by a Non-Profit Corporation that provides social welfare services as a core mission to individuals who are over the age of 55 and is in a position that is subsidized by federal, state, or local government. The second category shall apply only to Non-Profit Corporations operating as of January 1, 2015, and apply only as to the number of employees over the age of 55 holding positions in the Corporation as of January 1, 2015 that are subsidized by federal, state, or local government, plus 25% of that number. Any employees hired by a Non-Profit Corporation after January 1, 2015 that exceed the numerical threshold in the prior sentence (including the additional 25%) shall not qualify as "Government Supported Employees." If at any time the number of employees over the age of 55 holding positions in the Corporation that are subsidized by federal, state, or local government falls below that numerical threshold (including the additional 25%), then those positions shall qualify as "Government Supported Employee" positions.

"Minimum Wage" shall have the meaning set forth in Section 12R.4 of this Chapter.

"Nonprofit Corporation" shall mean a nonprofit corporation, duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation and (if a foreign corporation) in good standing under the laws of the State of California, which corporation has established and maintains valid nonprofit status under Section 501(c)(3) of the United States Internal Revenue Code of 1986, as amended, and all rules and regulations promulgated under such Section.

"Welfare-to-Work Program" shall mean the City's CalWORKS Program, County Adult Assistance Program (CAAP) which includes the Personal Assisted Employment Services (PAES) Program, and General Assistance Program, and any successor programs that are substantially similar to them.

(Added by Proposition L, 11/4/2003; amended by Proposition J, 11/4/2014)

SEC. 12R.4. MINIMUM WAGE.

(a) Employers shall pay Employees no less than the Minimum Wage for each hour worked within the geographic boundaries of the City.

(1) Except as provided in subsection 12R.4(b), the Minimum Wage paid to Employees shall be as follows:

(A) Beginning on May 1, 2015, the Minimum Wage shall be an hourly rate of \$12.25.

(B) Beginning on July 1, 2016, the Minimum Wage shall be an hourly rate of \$13.00.

(C) Beginning on July 1, 2017, the Minimum Wage shall be an hourly rate of \$14.00.

(D) Beginning on July 1, 2018, the Minimum Wage shall be an hourly rate of \$15.00.

(E) Beginning on July 1, 2019, and each year thereafter, the Minimum Wage shall increase by an amount corresponding to the prior year's increase, if any, in the Consumer Price Index for urban wage earners and clerical workers for the San Francisco-Oakland-San Jose, CA metropolitan statistical area, as determined by the Controller.

(b) Beginning on May 1, 2015, the Minimum Wage paid to Government Supported Employees shall be an hourly rate of \$12.25. Beginning on July 1, 2016, and each year thereafter, the Minimum Wage paid to Government Supported Employees shall increase by an amount corresponding to the prior year's increase, if any, in the Consumer Price Index for urban wage earners and clerical workers for the San Francisco-Oakland-San Jose, CA metropolitan statistical area, as determined by the Controller.

(Added by Proposition L, 11/4/2003; amended by Proposition J, 11/4/2014)

SEC. 12R.5. NOTICE, POSTING AND PAYROLL RECORDS.

(a) By December 1 of each year, the Agency shall publish and make available to Employers a bulletin announcing the adjusted Minimum Wage rate for the upcoming year, which shall take effect on January 1. In conjunction with this bulletin, the Agency shall by December 1 of each year publish and make available to Employers, in all languages spoken by more than five percent of the San Francisco work force, a notice suitable for posting by Employers in the workplace informing Employees of the current Minimum Wage rate and of their rights under this Chapter.

(b) Every Employer shall post in a conspicuous place at any workplace or job site where any Employee works the notice published each year by the Agency informing Employees of the current Minimum Wage rate and of their rights under this Chapter. Every Employer shall post such notices in English, Spanish, Chinese and any other language spoken by at least five percent of the Employees at the workplace or job site. Every Employer shall also provide each Employee at the time of hire the Employer's name, address and telephone number in writing.

(c) Employers shall retain payroll records pertaining to Employees for a period of four years, and shall allow the Agency access to such records, with appropriate notice and during business hours, to monitor compliance with the requirements of this Chapter. Where an Employer does not maintain or retain adequate records documenting wages paid or does not allow the Agency reasonable access to such records, it shall be presumed that the Employer paid no more than the applicable federal or state minimum wage, absent clear and convincing evidence otherwise.

(d) The Director of the Agency or his or her designee shall have access to all places of labor subject to this ordinance during business hours to inspect books and records, interview employees and investigate such matters necessary or appropriate to determine whether an Employer has violated any provisions of this ordinance.

(e) The Agency shall be authorized under Section 12R.7 to develop guidelines or rules to govern Agency investigative activities, including but not limited to legal action to be taken in the event of employer noncompliance or interference with Agency investigative actions.

(Added by Proposition L, 11/4/2003; amended by Ord. [175-11](#), File No. 110594, App. 9/16/2011, Eff. 10/16/2011)

SEC. 12R.6. RETALIATION PROHIBITED.

It shall be unlawful for an Employer or any other party to discriminate in any manner or take adverse action against any person in retaliation for exercising rights protected under this Chapter. Rights protected under this Chapter include, but are not limited to: the right to file a complaint or inform any person about any party's alleged noncompliance with this Chapter; and the right to inform any person of his or her potential rights under this Chapter and to assist him or her in asserting such rights. Protections of this Chapter shall apply to any person who mistakenly, but in good faith, alleges noncompliance with this Chapter. Taking adverse action against a person within ninety (90) days of the person's exercise of rights protected under this Chapter shall raise a rebuttable presumption of having done so in retaliation for the exercise of such rights.

(Added by Proposition L, 11/4/2003)

SEC. 12R.7. IMPLEMENTATION AND ENFORCEMENT.

(a) **Enforcement Priority.** It is the policy of the City and County of San Francisco that all employees be compensated fairly according to the law and that Employers who engage in wage theft be held accountable. Towards that end, the Mayor and Board of Supervisors shall study and review the feasibility of enacting additional measures consistent with state law to enhance the Agency's enforcement tools and the City's efforts to combat wage theft. The Mayor and Board of Supervisors shall also take steps to ensure optimal collaboration among all City agencies and departments, as well as between the City and state and federal labor standards agencies, in the enforcement of this Chapter.

(b) **Implementation.** The Agency shall be authorized to coordinate implementation and enforcement of this Chapter and may promulgate appropriate guidelines or rules for such purposes consistent with this Chapter. Any guidelines or rules promulgated by the Agency shall have the force and effect of law and may be relied on by Employers, Employees and other parties to determine their rights and responsibilities under this Chapter. Any guidelines or rules may establish procedures for ensuring fair, efficient and cost-effective implementation of this Chapter, including supplementary procedures for helping to inform Employees of their rights under this Chapter, for monitoring Employer compliance with this Chapter, and for providing administrative hearings to determine whether an Employer or other person has violated the requirements of this Chapter. The Agency shall make every effort to resolve complaints in a timely manner and shall have a policy that the Agency shall take no more than one year to settle, request an administrative hearing under Section 12R.7(b), or initiate a civil action under Section 12R.7(c). The failure of the Agency to meet these timelines within one year shall not be grounds for closure or dismissal of the complaint.

(c) **Administrative Enforcement.**

(1) The Agency is authorized to take appropriate steps to enforce this Chapter. The Agency may investigate any possible violations of this Chapter by an Employer or other person. Where the Agency has reason to believe that a violation has occurred, it may order any appropriate temporary or interim relief to mitigate the violation or maintain the status quo pending completion of a full investigation or hearing.

(2) Where the Agency, after a hearing that affords a suspected violator due process, determines that a violation has occurred, it may order any appropriate relief including, but not limited to, reinstatement, the payment of any back wages unlawfully withheld, and the payment of an additional sum as an administrative penalty in the amount of \$50 to each Employee or person whose rights under this Chapter were violated for each day that the violation occurred or continued. A violation for unlawfully withholding wages shall be deemed to continue from the date immediately following the date that the wages were due

and payable as provided in Part 1 (commencing with Section 200) of Division 2 of the California Labor Code, to the date immediately preceding the date the wages are paid in full. Where prompt compliance is not forthcoming, the Agency may take any appropriate enforcement action to secure compliance, including initiating a civil action pursuant to Section 12R.7(c) of this Chapter and/or, except where prohibited by state or federal law, requesting that City agencies or departments revoke or suspend any registration certificates, permits or licenses held or requested by the Employer or person until such time as the violation is remedied. All City agencies and departments shall cooperate with revocation or suspension requests from the Agency. In order to compensate the City for the costs of investigating and remedying the violation, the Agency may also order the violating Employer or person to pay to the City a sum of not more than \$50 for each day and for each Employee or person as to whom the violation occurred or continued. Such funds shall be allocated to the Agency and shall be used to offset the costs of implementing and enforcing this Chapter. The amounts of all sums and payments authorized or required under this Chapter shall be updated annually for inflation, beginning January 1, 2005, using the inflation rate and procedures set forth in Section 4(b) 12R.4¹ of this Chapter.

(3) An Employee or other person may report to the Agency in writing any suspected violation of this Chapter. The Agency shall encourage reporting pursuant to this subsection by keeping confidential, to the maximum extent permitted by applicable laws, the name and other identifying information of the Employee or person reporting the violation. Provided, however, that with the authorization of such person, the Agency may disclose his or her name and identifying information as necessary to enforce this Chapter or for other appropriate purposes. In order to further encourage reporting by Employees, if the Agency notifies an Employer that the Agency is investigating a complaint, the Agency shall require the Employer to post or otherwise notify its Employees that the Agency is conducting an investigation, using a form provided by the Agency.

(d) **Civil Enforcement.** The Agency, the City Attorney, any person aggrieved by a violation of this Chapter, any entity a member of which is aggrieved by a violation of this Chapter, or any other person or entity acting on behalf of the public as provided for under applicable state law, may bring a civil action in a court of competent jurisdiction against the Employer or other person violating this Chapter and, upon prevailing, shall be entitled to such legal or equitable relief as may be appropriate to remedy the violation including, without limitation, the payment of any back wages unlawfully withheld, the payment of an additional sum as penalties in the amount of \$50 to each Employee or person whose rights under this Chapter were violated for each day that the violation occurred or continued, reinstatement in employment and/or injunctive relief, and shall be awarded reasonable attorneys' fees and costs. Provided, however, that any person or entity enforcing this Chapter on behalf of the public as provided for under applicable state law shall, upon prevailing, be entitled only to equitable, injunctive or restitutionary relief, and reasonable attorneys' fees and costs. Nothing in this Chapter shall be interpreted as restricting, precluding, or otherwise limiting a separate or concurrent criminal prosecution under the Municipal Code or state law. Jeopardy shall not attach as a result of any administrative or civil enforcement action taken pursuant to this Chapter.

(e) **Interest.** In any administrative or civil action brought for the nonpayment of wages under this Section, the Agency or court, as the case may be, shall award interest on all due and unpaid wages at the rate of interest specified in subdivision (b) of Section 3289 of the California Civil Code, which shall accrue from the date that the wages were due and payable as provided in Part 1 (commencing with Section 200) of Division 2 of the California Labor Code, to the date the wages are paid in full.

(f) **Posting Notice of Violation.** If an Employer fails to comply with a settlement agreement with the Agency, a final determination by the Agency after an administrative hearing officer issues a decision after a hearing under Section 12R.7(b), an administrative citation issues under Section 12R.19, a decision made in an administrative appeal brought under Section 12R.21, or judgment issued by the Superior Court, and the Employer has not filed an appeal from the administrative hearing decision, administrative citation, administrative appeal decision, or judgment, or the appeal is final, the Agency may require the Employer to post public notice of the Employer's failure to comply in a form determined by the Agency.

(g) **City Employees.** Where the aggrieved party is an Employee of the City, the Employee shall be entitled to all rights and remedies available under this Section 12R.7 except the Employee may not recover the \$50 per diem penalty provided for in subsections (b) and (c) of this Section 12R.7.

(Added by Proposition L, 11/4/2003; amended by Ord. 205-06, File No. 060247, App. 7/25/2006; Ord. [175-11](#), File No. 110594, App. 9/16/2011, Eff. 10/16/2011; Proposition J, 11/4/2014)

CODIFICATION NOTES

1. So in Proposition J.

SEC. 12R.8. WAIVER THROUGH COLLECTIVE BARGAINING.

All or any portion of the applicable requirements of this Chapter shall not apply to Employees covered by a bona fide collective bargaining agreement to the extent that such requirements are expressly waived in the collective bargaining agreement in clear and unambiguous terms.

(Added by Proposition L, 11/4/2003)

SEC. 12R.9. RELATIONSHIP TO OTHER REQUIREMENTS.

This Chapter provides for payment of a minimum wage and shall not be construed to preempt or otherwise limit or affect the applicability of any other law, regulation, requirement, policy or standard that provides for payment of higher or supplemental wages or benefits, or that extends other protections including, but not limited to, the San Francisco Minimum Compensation Ordinance.

(Added by Proposition L, 11/4/2003)

SEC. 12R.10. APPLICATION OF MINIMUM WAGE TO WELFARE-TO-WORK PROGRAMS.

The Minimum Wage established pursuant to Section 12R.4 of this Chapter shall apply to the City's Welfare-to-Work Programs under which persons must perform work in exchange for receipt of benefits. Participants in Welfare-to-Work Programs shall not, during a given benefits period, be required to work more than a number of hours equal to the value of all cash benefits received during that period, divided by the Minimum Wage. Where state or federal law would preclude the City from reducing the number of work hours required under a given Welfare-to-Work Program, the City may comply with this Section by increasing the cash benefits awarded so that their value is no less than the product of the Minimum Wage multiplied by the number of work hours required.

(Added by Proposition L, 11/4/2003; amended by Proposition J, 11/4/2014)

SEC. 12R.11. OPERATIVE DATE.

The changes to this Chapter adopted at the November 4, 2014 municipal election shall have prospective effect only and shall become operative on May 1, 2015.

(Added by Proposition L, 11/4/2003; amended by Proposition J, 11/4/2014)

SEC. 12R.12. SEVERABILITY.

If any part or provision of this Chapter, or the application of this Chapter to any person or circumstance, is held invalid, the remainder of this Chapter, including the application of such part or provisions to other persons or circumstances, shall not be affected by such a holding and shall continue in full force and effect. To this end, the provisions of this Chapter are severable.

(Added by Proposition L, 11/4/2003)

SEC. 12R.13. AMENDMENT BY THE BOARD OF SUPERVISORS.

This Chapter may be amended by the Board of Supervisors as regards the implementation or enforcement thereof, but not as regards the substantive requirements of the Chapter or its scope of coverage.

(Added by Proposition L, 11/4/2003)

SEC. 12R.14. CIVIL ACTIONS.

In addition to the actions provided for in Section 12R.7(c), the City Attorney may bring a civil action to enjoin any violation of this Chapter. The City shall be entitled to its attorney's fees and costs in any action brought pursuant to this Section where the City is the prevailing party.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.15. REMEDIES CUMULATIVE.

The remedies, penalties and procedures provided under this Chapter are cumulative and are not intended to be exclusive of any other available remedies, penalties and procedures.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.16. ADMINISTRATIVE PENALTIES AND CITATIONS.

(a) **Administrative Penalties; Citations.** An administrative penalty may be assessed for a violation of the provisions of this Chapter as specified below. The penalty may be assessed by means of an administrative citation issued by the Director of the Office of Labor Standards Enforcement.

(b) **Administrative Penalty Amounts.** In addition to all other civil penalties provided for by law, the following violations shall be subject to administrative penalties in the amounts set forth below:

VIOLATION	PENALTY AMOUNT
Failure to maintain payroll records or to retain payroll records for four years – Administrative Code Section 12R.5(c)	\$500.00
Failure to allow the Office of Labor Standards Enforcement to inspect payroll records – Administrative Code Section 12R.5(c)	\$500.00
Retaliation for exercising rights under Minimum Wage Ordinance – Administrative Code Section 12R.6 The Penalty for retaliation is \$1,000.00 per employee.	\$1,000.00
Failure to Post notice of Minimum Wage rate – Administrative Code Section 12R.5(b) Failure to provide notice of investigation to employees – Administrative Code Section 12R.7(b) Failure to post notice of violation to public – Administrative Code Section 12R.7(e)	\$500.00

Failure to provide employer's name, address, and telephone number in writing – Administrative Code Section 12R.5(b)	
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The penalty amounts shall be increased cumulatively by fifty percent (50%) for each subsequent violation of the same provision by the same employer or person within a three (3) year period. The maximum penalty amount that may be imposed by administrative citation in a calendar year for each type of violation listed above shall be \$5,000 or \$10,000 if a citation for retaliation is issued. In addition to the penalty amounts listed above, the Office of Labor Standards Enforcement may assess enforcement costs to cover the reasonable costs incurred in enforcing the administrative penalty, including reasonable attorneys' fees. Enforcement costs shall not count toward the \$5,000 annual maximum.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006; amended by Ord. [175-11](#), File No. 110594, App. 9/16/2011, Eff. 10/16/2011)

SEC. 12R.17. VIOLATIONS.

(a) **Separate and Continuing Violations; Penalties Paid Do Not Cure Violations.** Each and every day that a violation exists constitutes a separate and distinct offense. Each section violated constitutes a separate violation for any day at issue. If the person or persons responsible for a violation fail to correct the violation within the time period specified on the citation and required under Section 12R.18, the Director of the Office of Labor Standards Enforcement may issue subsequent administrative citations for the uncorrected violation(s) without issuing a new notice as provided in Section 12R.18(b). Payment of the penalty shall not excuse the failure to correct the violation nor shall it bar any further enforcement action by the City. If penalties and costs are the subject of administrative appeal or judicial review, then the accrual of such penalties and costs shall be stayed until the determination of such appeal or review is final.

(b) **Payments to City; Due Date; Late Payment Penalty.** All penalties assessed under Section 12R.16 shall be payable to the City and County of San Francisco. Administrative penalties and costs assessed by means of an administrative citation shall be due within thirty (30) days from the date of the citation. The failure of any person to pay an administrative penalty and costs within that time shall result in the assessment of an additional late fee. The amount of the late fee shall be ten (10) percent of the total amount of the administrative penalty assessed for each month the penalty and any already accrued late payment penalty remains unpaid.

(c) **Collection of Penalties; Special Assessments.** The failure of any person to pay a penalty assessed by administrative citation under Section 12R.16 within the time specified on the citation constitutes a debt to the City. The City may file a civil action, create and impose liens as set forth below, or pursue any other legal remedy to collect such money.

(d) **Liens.** The City may create and impose liens against any property owned or operated by a person who fails to pay a penalty assessed by administrative citation. The procedures provided for in Chapter 10, Article XX of the Administrative Code shall govern the imposition and collection of such liens.

(e) **Payment to City.** The Labor Standards Enforcement Officer has the authority to require that payment of back wages found to be due and owing to employees be paid directly to the City and County of San Francisco for disbursement to the employees. The Controller shall hold the back wages in escrow for workers whom the Labor Standards Enforcement Officer, despite his/her best efforts, including any required public notice, cannot locate; funds so held for three years or more shall be dedicated to the enforcement of the Minimum Wage Ordinance or other laws enforced by the Office of Labor Standards Enforcement.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006; amended by Ord. [175-11](#), File No. 110594, App. 9/16/2011, Eff. 10/16/2011; Ord. [75-14](#), File No. 140226, App. 5/28/2014, Eff. 6/27/2014; Proposition J, 11/4/2014)

SEC. 12R.18. ADMINISTRATIVE CITATION; NOTICE OF VIOLATION.

(a) **Issuance of Citation.** The Director has the authority to issue an administrative citation for any violation of this Chapter that is identified in Section 12R.16(b). The administrative citation shall be issued on a form prescribed by the Office of Labor Standards Enforcement.

(b) **Notice and Opportunity to Cure.** In order to facilitate compliance, the Director of the Office of Labor Standards Enforcement ("Director") or his or her designee may notify any person in violation of the Code provisions identified in Section 12R.16(b) of such violation prior to the issuance of an administrative citation. Regardless of the manner of service of the notice under Section 12R.19, the Director or his or her designee may post the notice of violation by affixing the notice to a surface in a conspicuous place on property that is (1) the person's principal place of business in the City, or (2) if the person's principal place of business is outside the City, the fixed location within the City from or at which the person conducts business in the City, or (3) if the person does not regularly conduct business from a fixed location in the City, one of the following: (i) the location where the person maintains payroll records if the notice of violation is for violation of Section 12R.5(c), or (ii) the jobsite or other primary location where the person's employees perform services in the City at the time the notice is posted. The notice of violation shall specify the action required to correct or otherwise remedy the violation(s). At the discretion of the Director or his or her designee, the person or persons responsible for the violation may be allowed ten (10) days from the date of the notice of violation to establish that no violation occurred or such person or persons are not responsible for the violation, or correct or otherwise remedy the violation; provided, however, that the Director may, in his or her discretion, assign a longer period, not to exceed twenty-one (21) days, within which to correct or otherwise remedy each violation, or establish that no violation occurred or such person or persons are not responsible for the violation. The Director may consider the cost of correction and the time needed to obtain information, documents, data and records for correction in assigning a specific period of time within which to correct or otherwise remedy each violation, or obtain and submit evidence that no violation occurred or such person or persons are not responsible for the violation.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006; amended by Ord. [175-11](#), File No. 110594, App. 9/16/2011, Eff. 10/16/2011)

SEC. 12R.19. ADMINISTRATIVE CITATION AND NOTICE OF VIOLATION; SERVICE.

Service of a notice of violation and an administrative citation under Section 12R.16 may be accomplished as follows:

(a) The Director or his or her designee may obtain the signature of the person responsible for the violation to establish personal service of the citation; or

(b) (1) Director or his or her designee shall post the citation by affixing the citation to a surface in a conspicuous place on the property described in Section 12R.18. Conspicuous posting of the citation is not required when personal service is accomplished or when conspicuous posting poses a hardship, risk to personal health or safety or is excessively expensive; and

(2) The Director or his or her designee shall serve the citation by first class mail as follows:

(i) The administrative citation shall be mailed to the person responsible for the violation by first class mail, postage prepaid, with a declaration of service under penalty of perjury; and

(ii) A declaration of service shall be made by the person mailing the administrative citation showing the date and manner of service by mail and reciting the name and address of the person to whom the citation is issued; and

(iii) Service of the administrative citation by mail in the manner described above shall be effective on the date of mailing.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.20. ADMINISTRATIVE CITATION; CONTENTS.

The administrative citation under Section 12R.16 shall include all the following:

- (1) A description of the violation;
- (2) The date and location of the violation(s) observed;
- (3) A citation to the provisions of law violated;
- (4) A description of corrective action required;
- (5) A statement explaining that each day of a continuing violation may constitute a new and separate violation;
- (6) The amount of administrative penalty imposed for the violation(s);
- (7) A statement informing the violator that the fine shall be paid to the City and County of San Francisco within thirty (30) days from the date on the administrative citation, the procedure for payment, and the consequences of failure to pay;
- (8) A description of the process for appealing the citation, including the deadline for filing such an appeal; and
- (9) The name and signature of the Director.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.21. ADMINISTRATIVE APPEAL.

(a) **Period of Limitation for Appeal.** Persons receiving an administrative citation may appeal it within fifteen (15) days from the date the citation is served. The appeal must be in writing and must indicate a return address. It must be accompanied by the penalty amount, specifying the basis for the appeal in detail, and must be filed with both the Office of Labor Standards Enforcement and the Controller's Office as indicated in the administrative citation.

(b) **Hearing Date.** As soon as practicable after receiving the written notice of appeal and the penalty amount, the Controller or his or her designee shall promptly select a hearing officer (who shall not be an employee in the Office of Labor Standards Enforcement) to hear and decide the administrative appeal. The hearing officer shall fix a date, time and place for the hearing on the appeal. Written notice of the time and place for the hearing may be served by first class mail, at the return address indicated on the written appeal. Service of the notice must be made at least ten (10) days prior to the date of the hearing to the person appealing the citation. The hearing shall be held no later than thirty (30) days after service of the notice of hearing, unless that time is extended by mutual agreement of the parties.

(c) **Notice.** Except as otherwise provided by law, the failure of any person with an interest in property affected by the administrative citation, or other person responsible for a violation, to receive a properly addressed notice of the hearing shall not affect the validity of any proceedings under this Chapter. Service by first class mail, postage prepaid, shall be effective on the date of mailing.

(d) **Failure to Appeal.** Failure of any person to file an appeal in accordance with the provisions of this Section or to appear at the hearing shall constitute a failure to exhaust administrative remedies and a forfeiture of the penalty amount previously remitted.

(e) **Submittals for the Hearing.** No later than five (5) days prior to the hearing, the person to whom the citation was issued and the Office of Labor Standards Enforcement shall submit to the hearing officer, with simultaneous service on the opposing party, written information including, but not limited to, the following: the statement of issues to be determined by the hearing officer and a statement of the evidence to be offered and the witnesses to be presented at the hearing.

(f) **Conduct of Hearing.** The hearing officer appointed by the Controller or the Controller's designee shall conduct all appeal hearings under this Chapter. The Office of Labor Standards Enforcement shall have the burden of proof in such hearings. The hearing officer may accept evidence on which persons would commonly rely in the conduct of their serious business affairs, including but not limited to the following:

(1) A valid citation shall be prima facie evidence of the violation;

(2) The hearing officer may accept testimony by declaration under penalty of perjury relating to the violation and the appropriate means of correcting the violation;

(3) The person responsible for the violation, or any other interested person, may present testimony or evidence concerning the violation and the means and time frame for correction.

The hearing shall be open to the public and shall be tape-recorded. Any party to the hearing may, at his or her own expense, cause the hearing to be recorded and transcribed by a certified court reporter. The hearing officer may continue the hearing and request additional information from the Office of Labor Standards Enforcement or the appellant prior to issuing a written decision.

(g) **Hearing Officer's Decision; Findings.** The hearing officer shall make findings based on the record of the hearing and issue a decision based on such findings within fifteen (15) days of conclusion of the hearing. The hearing officer's decision may uphold the issuance of a citation and penalties stated therein, may dismiss a citation, or may uphold the issuance of the citation but reduce, waive or conditionally reduce or waive the penalties stated in a citation or any late fees assessed if mitigating circumstances are shown and the hearing officer finds specific grounds for reduction or waiver in the evidence presented at the hearing. The hearing officer may impose conditions and deadlines for the correction of violations or the payment of outstanding civil penalties. Copies of the findings and decision shall be served upon the appellant and the Office of Labor Standards Enforcement by certified mail.

(h) **Hearing Officer's Decision.** The decision of the hearing officer is final. If the hearing officer concludes that the violation charged in the citation did not occur or that the person charged in the citation was not the responsible party, the Office of Labor Standards Enforcement shall refund or cause to be refunded the penalty amount to the person who deposited such amount. The hearing officer's decision shall be served on the appellant by certified mail.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.22. REGULATIONS.

The Office of Labor Standards Enforcement may promulgate and enforce rules and regulations, and issue determinations and interpretations relating to the administrative penalty and citation system pursuant to Sections 12R.16 through 12R.20, inclusive. The Controller may promulgate and enforce rules and regulations, and issue determinations and interpretations relating to the conduct of administrative appeals under Section 12R.21. Any rules and regulations promulgated by the Office of Labor Standards Enforcement or Controller shall be approved as to legal form by the City Attorney, and shall be subject to not less than one noticed public hearing. The rules and regulations shall become effective 30 days after receipt by the Clerk of the Board of Supervisors, unless the Board of Supervisors by resolution disapproves or modifies the regulations. The Board of Supervisors' determination to modify or disapprove a rule or regulation submitted by the Office of Labor Standards Enforcement or Controller shall not impair the ability of the Office of Labor Standards Enforcement or Controller to resubmit the same or similar rule or

regulation directly to the Board of Supervisors if the Office of Labor Standards Enforcement or Controller determines it is necessary to effectuate the purposes of this Chapter.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.23. JUDICIAL REVIEW.

(a) **Procedures.** After receipt of the decision of the hearing officer under Section 12R.21, the appellant may file an appeal with the superior court pursuant to California Government Code Section 53069.4. The appeal shall be submitted within twenty (20) days of the date of mailing of the hearing officer's decision, with the applicable filing fee. The appeal shall state the reasons the appellant objects to the findings or decision.

(b) **Review.** The superior court shall conduct a de novo hearing, except that the contents of the Office of Labor Standards Enforcement's file (excluding attorney client communications and other privileged or confidential documents and materials that are not discoverable or may be excluded from evidence in judicial proceedings under the Evidence Code, Civil Code, Code of Civil Procedure or other applicable law) shall be received into evidence. A copy of the notice of violation and imposition of penalty shall be entered as prima facie evidence of the facts stated therein.

(c) **Filing Fee.** The superior court filing fee shall be twenty-five (\$25.00). If the court finds in favor of the appellant, the amount of the fee shall be reimbursed to the appellant by the City and County of San Francisco. Any deposit of penalty shall be refunded by the City and County of San Francisco in accordance with the judgment of the court.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.24. OTHER REMEDIES NOT AFFECTED.

The administrative citation procedures established in this Chapter shall be in addition to any other criminal, civil, or other remedy established by law which may be pursued to address violations of this Chapter. An administrative citation issued pursuant to this Chapter shall not prejudice or adversely affect any other action, civil or criminal, that may be brought to abate a violation or to seek compensation for damages suffered.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

SEC. 12R.25. OUTREACH.

The Office of Labor Standards Enforcement shall establish a community-based outreach program to conduct education and outreach to employees. In partnership with organizations involved in the community-based outreach program, the Office of Labor Standards shall create outreach materials that are designed for workers in particular industries.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006; amended by Ord. [175-11](#), File No. 110594, App. 9/16/2011, Eff. 10/16/2011)

SEC. 12R.26. REPORTS.

The Office of Labor Standards Enforcement shall provide annual reports to the Board of Supervisors on the implementation of the Minimum Wage Ordinance.

(Added by Ord. 205-06, File No. 060247, App. 7/25/2006)

DEPARTMENT OF INDUSTRIAL RELATIONS

Office of the Director
1515 Clay Street, 17th Floor
Oakland, California 94612



December 21, 2012

San Francisco Office of Labor Standards Enforcement
City Hall – Room 430
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Attention: Ms. Donna Levitt

RE: Application for Approval of Labor Compliance Program
LCP ID No. 2012.01135

Dear Ms. Levitt:

In accordance with the provisions of Title 8, California Code of Regulations, section 16425, approval of San Francisco Office of Labor Standards Enforcement's Labor Compliance Program is hereby granted, effective December 21, 2012. This approval covers any project for which your agency is required by state statute to have an approved LCP, including a project subject to the requirements of Section 75075 of the Public Resources Code (public works projects funded by Proposition 84).

An LCP must comply with the requirements of Title 8, California Code of Regulations, sections 16421 through 16439, as well as with all other statutes and regulations pertaining to the monitoring and enforcement of the state's prevailing wage requirements. Among other things, you must file an annual report in accordance with the requirements of section 16431 of the regulations, whether or not your LCP has conducted any monitoring or enforcement during the preceding year. The annual reporting period is July 1 to June 30, and annual reports are due by no later than August 31.

Please note that Labor Code section 1773.1 requires your agency to notify the Department whenever awarding a public works contract for *any* project of \$30,000 or more that will use apprenticeable crafts, and 8 Cal.Code Regs. section 16451(a) also requires this notice for any project of any amount that requires use of DIR's Compliance Monitoring Unit (CMU) or a prescribed alternative. This notice should be provided on the electronic PWC-100 form found on the CMU website at <http://www.dir.ca.gov/dlse/cmu/cmu.html>.

Additional information and resources pertaining to labor compliance programs are available on the Department's website at <http://www.dir.ca.gov/lcp.asp>. Questions about enforcement policy must be directed to the Division of Labor Standards Enforcement. If you have any other questions, including about this notice, please contact Jonathan LeGaux at (510) 622-5054.

Sincerely,

A handwritten signature in purple ink that reads "Christine Baker".

Christine Baker, Director of Industrial Relations

cc: Susan Nakagama, Regional Manager, Division of Labor Standards Enforcement

Attachment F

GHG Analysis

**CALIFORNIA ASSEMBLY BILL 900
GREENHOUSE GAS ANALYSIS
FOR THE
10 SOUTH VAN NESS MIXED-USE PROJECT
SAN FRANCISCO, CALIFORNIA**

Prepared for:

10 SVN, LLC
2200 Biscayne Boulevard
Miami, FL 33137

Prepared by:

AECOM
300 California Street, Suite 600
San Francisco, CA 94104

October 2, 2017

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SECTION 1

ANALYSIS OF GHG IMPACTS

1.1 INTRODUCTION

AECOM conducted an analysis of greenhouse gas (GHG) emissions associated with the proposed 10 South Van Ness Mixed-use Project in San Francisco, California (proposed project). This GHG analysis was developed to meet the requirements of California Assembly Bill (AB) 900, the Jobs and Economic Improvement through Environmental Leadership Act, and was further informed by the criteria set forth in the Governor's Guidelines for Streamlining Judicial Review under CEQA (Public Resources Code Section 21178 et seq.).

1.2 PROJECT DESCRIPTION

The project sponsor, 10 SVN, LLC, proposes to redevelop the 1.17 acre property located at 10 South Van Ness Avenue at the southwest corner of South Van Ness Avenue and Market Street in the South of Market neighborhood of San Francisco. The proposed project would include construction of two 400-foot-tall (420 feet total, inclusive of roofs screens and elevator penthouses), 41-story buildings containing a total of 984 dwelling units and retail space on the ground floor. Above grade, the proposed project would consist of two separate structures, each consisting of a tower above a podium. Below grade, the two structures would be connected on basement Levels B1 and B2. The project sponsor is also considering a taller building design consisting of a single tower and podium. The single tower project variant would include construction of a 590-foot-tall, 55-story building. Similar to the proposed project, the single tower project variant would have stair/elevator penthouses extending up to 20 feet above the roof height, for a total height of 610 feet. The details of the proposed project and the single tower project variant are shown in Table 1. Project maps are included in Appendix A.

Proposed Project

The proposed project would result in the demolition of the existing 91,088 square-foot, two-story, 30- to 45-foot-tall Honda Dealership and Service Center, and construction of a new approximately 1,071,100 gross square feet (gsf), 984 unit, 41 story mixed-use residential building. The proposed project would construct a building with one below-grade structure and two separate above-grade structures. Above grade, each structure would consist of a tower on top of a podium. Each tower would have its own building core. Two passageways would be constructed to serve as a connection between the two podiums across the mid-block alley, one at Level 2 and one at Level 13. Below Ground Level, the building would consist of a single, two-

level parking garage/basement. The building would have a single foundation supporting all project structures. Each tower would have a maximum height of 400 feet (420 feet total, inclusive of roof screens and the elevator penthouse on each tower). The ground floor through Level 12 would be located in the tower podiums, and Levels 13 through 41 would be located in the towers. The towers would be separated by a minimum of 115 feet. The north tower podium would be approximately 114 feet in height, and the south tower podium would be approximately 120 feet in height. Both podiums would include retail uses and residential lobbies at the Ground Level.

The proposed project would include a total of approximately: 935,745 gsf of residential uses, 30,350 gsf of retail uses; 3,000 gsf of rooftop mechanical equipment; and 102,000 gsf of parking with up to 518 vehicle parking spaces. In both towers, residential amenities would be provided on Level 2, and residential units would be provided on Levels 3-41. Residential lobbies and building services would comprise approximately 16,670 gsf. The residential entrances would be at the approximate center of each tower podium's frontage on South Van Ness Avenue. The ground floor of each tower podium would include approximately 30,350 gsf of retail space for use by multiple tenants. As currently designed, there would be a total of ten retail spaces ranging from 800 square feet to 11,600 square feet. The retail uses would front onto South Van Ness Avenue, Market Street, 12th Street, and the proposed mid-block alley. The retail spaces would have a minimum floor-to-ceiling height of 19 feet in both tower podiums.

The proposed project would include approximately 48,150 square feet of usable open space, which would be provided through a combination of publically-accessible open spaces, and common useable open spaces. Publicly-accessible open space would include the 2,975-square-foot mid-block alley between the two tower podiums, which would provide a pedestrian connection between South Van Ness Avenue and 12th Street. Private common open spaces would include amenity terraces on Level 2 of both tower podiums, Levels 3 and 11 of the north tower, Level 13 of the south tower, and on the roofs of both towers.

The proposed project would include 102,000 gsf of parking and building services. Up to 518 off-street vehicle parking spaces would be provided for the proposed project in two basement levels, consisting of 491 spaces for residential use, 14 spaces for retail use, and six spaces for car-share vehicles. In addition, a total of seven off-street freight-loading spaces would be located in the two basement levels, three of which would be standard freight-loading spaces, and four of which would be service vehicle spaces. One freight-loading space would accommodate up to a 45-foot-long vehicle. On the ground floor of the north tower podium, 336 class I bicycle parking spaces would be provided: 332 for residential use and four for retail use. On-street bicycle parking would include 61 class II bicycle parking spaces: 49 for residential use and 12 for retail use.

Table 1. Proposed Project and Single Tower Project Variant Characteristics

Lot	Proposed Project		Single Tower Project Variant
	Dimensions		
Size	51,150 square feet		
Length	475 feet (South Van Ness Avenue)/288 feet (Market Street)/450 feet (12th Street)		
Proposed Building	Area (gsf)		
Residential ¹	935,745		935,250
Ground Floor Commercial (Retail)	30,350		30,450
Parking ²	102,000		101,992
Rooftop Mechanical	3,000		5,297
Total	1,071,095		1,072,989
Building Characteristics	Description		
Stories	North Tower/Podium	41 stories/12 stories	55 stories /15 stories (Tower/Podium)
	South Tower/Podium	41 stories /12 stories	
Height	North Tower/Podium	400 feet (up to 420 feet inclusive of the elevator penthouse ³)/114 feet	590 feet (up to 610 feet inclusive of the elevator penthouse)/164 feet (Tower/Podium)
	South Tower/Podium	400 feet (up to 420 feet inclusive of the elevator penthouse)/120 feet	
Ground Floor	Retail: 30,350 gsf multiple tenant spaces Residential: 2 residential lobbies, and 336 Class I bicycle parking spaces		Retail: 30,450 gsf multiple tenant spaces Residential: 1 residential lobby, and 336 Class I bicycle parking spaces
Basement	518 vehicle parking spaces		518 vehicle parking spaces
Proposed Units	Amount (Approx. Percent)		
Dwelling Units	984		
	North Tower	South Tower	984
Studio	267 (27%)	108 (11%)	347 (35%)
1-Bedroom	294 (30%)	167 (17%)	449 (46%)
2-Bedroom	51 (5%)	49 (5%)	166 (17%)
3-Bedroom	19 (2%)	29 (3%)	22 (2%)
Vehicle Parking Spaces ⁴	518		518
Bicycle Parking Spaces ⁵	397		397
Open Space ⁶	Area (sf)		
Publicly-accessible	2,975		12,091
Common	45,175		25,565
Private	0		9,550

Source: 10 South Van Ness LLC, 2017.

Notes:

- Includes first-floor non-retail uses and second-floor residential amenity uses.
- Includes parking and basement mechanical equipment.
- Consistent with the Planning Code Height and Bulk designations for the project site, the building height is 400 feet. Up to 20 feet for the elevator penthouse, roof scree, and other rooftop appurtenances are exempt from this height limit.
- Vehicle parking spaces: 491 for residential use, 14 for retail use, six for car-share, seven for off-street loading.
- Bicycle parking spaces: 336 Class I bicycle parking spaces on the ground floor, 61 Class II bicycle parking spaces in on-street bicycle corrals.
- Provided in compliance with Planning Code Section 736.93 Usable Open Space Per Residential Unit.
- Note that the CalEEMod input file included a total of 938,745 square feet for residential land uses, which includes 935,745 square feet for residential units and also includes the 3,000 square feet of rooftop mechanical equipment.

The proposed project would include one 1,500-kW diesel-powered emergency generator and other mechanical equipment in the garage/basement. Trash storage would also be located in the garage/basement, adjacent to an accessible loading area. The garage/basement would be secured, and would be accessible only to residents and retailers. Approximately 3,000 gsf of the roof area would be reserved for heating, ventilation, and air conditioning (HVAC) mechanical equipment.

The proposed project's streetscape plan called the "Market Octavia Streetscape Plan" would conform to Market and Octavia Plan and San Francisco Planning Department Standards. The eastern and western sidewalks of 12th Street would be expanded from 15 feet to a width of 21 feet. Eight-foot-wide bulb-outs would be installed at the intersection of 12th and Market streets. A raised crosswalk would be installed at the intersection of 12th and Stevenson streets. The "pedestrian island" at the intersection of 12th Street and South Van Ness Avenue would be removed and replaced by bulb-outs on both sides of 12th Street and a pedestrian plaza on the southwest side of the intersection.

The proposed project would be required to comply with San Francisco Planning Code Section 169, Transportation Demand Management Program (added by Ordinance 34-17, approved February 2017). The proposed project would seek Leadership in Energy and Environmental Design (LEED) silver certification, which includes measures applicable to both construction and operation of the proposed project.

Single Tower Project Variant

The project sponsor is also considering a taller building design consisting of a single tower and podium. The single tower project variant would include construction of a 590-foot-tall, 55-story building. Similar to the proposed project, the single tower project variant would have stair/elevator penthouses extending up to 20 feet above the roof height, for a total height of 610 feet. The podium would vary in height, from approximately 90 to 139 feet along the Market Street frontage and up to approximately 164 feet along the southern frontage of the site.

The single tower project variant would include up to approximately 984 dwelling units in a combination of studios and one-, two-, and three-bedroom units, similar to the proposed project. The ground floor would contain the same uses as the proposed project, with comparable retail uses, and a single residential lobby. As with the proposed project, 336 class I bicycle spaces would be provided on the ground floor for project residents and ground-floor retail spaces, and 61 class II bicycle spaces would be provided on the sidewalk adjacent to the project site. These bicycle spaces would meet Planning Code requirements. Vehicle parking would be the same as under the proposed project, with 518 vehicle parking spaces provided in a two-level subgrade parking garage/basement with an entrance off of 12th Street.

The single tower project variant would include usable open space in a combination of publically-accessible open spaces (12,091 square feet), common useable open spaces (25,565 square feet), and private open space (9,550 square feet) for a total of 47,206 square feet. The publically-accessible open space would consist of a mid-block alley connecting Market Street to 12th Street and a pedestrian plaza along the northeasterly South Van Ness Avenue frontage. The common useable open space would be provided on Levels 14, 16, 29, 37, and 49.

The single tower project variant would include the same parking/loading, mechanical equipment, vehicular circulation, TDM plan, streetscape improvements, and sustainability features as the proposed project. Given that the single tower project variant would have the same program of development as the proposed project, the trip generation and travel demand would also be the same.

Streetscape Design

In addition to the proposed project and the single tower project variant, a straight-shot streetscape design variant is being analyzed. The straight-shot streetscape variant would exceed the Market and Octavia Plan and San Francisco Planning Department streetscape standards by extending the eastern sidewalk and pedestrian promenade adjacent to 12th Street to 40 feet in width. The straight-shot streetscape design could be developed with the proposed project or the single tower project variant. However, construction activities associated with the straight-shot streetscape design variant would be similar to the proposed streetscape design; therefore, construction impacts related to the straight-shot streetscape design variant would be the same as the proposed streetscape and are not analyzed further, herein. Neither streetscape designs would result in operational GHG emissions.

Construction

Construction is anticipated to occur over approximately 36 months, and would include the following phases: (1) demolition; (2) shoring and excavation; (3) foundation and podium construction; (4) superstructure/skin; and (5) interior work. Construction hours would typically be from 7:00 a.m. to 8:00 p.m., Monday through Thursday; and 7:00 a.m. to 5:00 p.m. on Fridays and Saturdays. Limited evening work (between 8:00 p.m. to 7:00 a.m.) and work on weekends (7:00 a.m. to 5:00 p.m.) would be required for Phases 3 and 4.

The project site would be excavated up to approximately 40 feet below grade in the northern portion and 50 feet below grade in the southern portion of the site. The deep foundation cast-in-

place piers would be constructed well below 50 feet, to the appropriate design depth. Excavation in the northern portion would be to a shallower depth due to the presence of the subsurface BART easement. The project would require approximately 100,000 cubic yards of excavated soil be removed from the project site and disposed of at an appropriate facility.

Construction for both the proposed project and the single tower project variant would involve the same activities, equipment, phasing, and duration. The parking garage design, including the ingress and egress location on 12th Street, would remain the same under the single tower project variant as under the proposed project; therefore, the site circulation would be the same. Given that the single tower project variant would have a comparable program of development as the proposed project, the trip generation and travel demand would also be similar. The operational life of the proposed project or single tower project variant was assumed to be 30 years.

1.3 GHG EMISSIONS BACKGROUND

Certain gases in the earth's atmosphere, classified as greenhouse gases (GHGs), play a critical role in determining the earth's surface temperature. GHGs are present in the atmosphere naturally, are released by natural and anthropogenic sources, and are formed from secondary reactions taking place in the atmosphere. Natural sources of GHGs include the respiration of humans, animals, and plants; decomposition of organic matter; and evaporation from the oceans. Anthropogenic sources of GHG emissions include the combustion of fossil fuels, waste treatment, and agricultural processes. The following GHGs are widely accepted as the principal contributors to human-induced global climate change and are relevant to this analysis:

- Carbon dioxide (CO₂)
- Methane (CH₄)
- Nitrous oxide (N₂O)

Emissions of CO₂ are byproducts of fossil fuel combustion. CH₄ is the main component of natural gas, and CH₄ emissions are associated with agricultural practices and landfills. N₂O emissions result from industrial processes, vehicle emissions, and agricultural practices.

Global warming potential (GWP) is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to CO₂. The GWP of a GHG is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time (i.e., lifetime) that the gas remains in the atmosphere ("atmospheric lifetime"). The reference gas for GWP is CO₂; therefore, CO₂ has a GWP of 1. The other main GHGs that have been attributed to human activity include CH₄, which has a GWP of 28, and N₂O, which has a GWP of 265

(IPCC 2013). For example, 1 ton of CH₄ has the same contribution to the greenhouse effect as approximately 28 tons of CO₂. GHGs with lower emissions rates than CO₂ may still contribute to climate change, because they are more effective at absorbing outgoing infrared radiation than CO₂ (i.e., high GWP). The concept of CO₂-equivalents (CO₂e) is used to account for the different GWP potentials of GHGs to absorb infrared radiation.

1.4 GHG EMISSIONS METHODOLOGY SUMMARY

To qualify as an Environmental Leadership and Design Project for AB 900, the Project must not result in any net new operational emissions of GHGs, as determined by the California Air Resources Board (ARB). According to ARB, the documentation must at minimum quantify:

- **Baseline Operational Annual Emissions:** Define the baseline operational annual GHG emissions sources against which the proposed project's GHG emissions will be compared;
- **Proposed Project Construction/Operational Annual Emissions:** Both direct and indirect GHG emissions associated with the project's demolition, construction, and operation, including emissions from the proposed project's projected energy use and transportation related emissions; and
- **Proposed Project Net New Construction/Operational Emissions:** The proposed project's net new emissions after accounting for project design features or measures that will be monitored and enforced consistent with Public Resources Code section 21183(d).

Consistent with ARB Guidelines, this analysis includes operational emissions for the existing auto dealership as part of the Baseline Operational Annual Emissions quantification. Baseline operational annual emissions for purposes of this analysis are considered to be the final year of operations (i.e., existing land use operational emissions in 2018).

This analysis includes construction and operational emissions for the proposed project as discussed in more detail in this report. Construction emissions are included for all construction years from 2019 through 2022. Operational emissions are estimated from 2022 through 2052 for comparison to the baseline annual emissions.

Because the proposed project and single tower project variant include the same construction activities and comparable operational sources, the analysis contained herein describes the proposed project, with the assumption that emissions resulting from the proposed project would be representative of those resulting from the single tower project variant.

1.5 CONSTRUCTION-RELATED GHG EMISSIONS

Construction of the proposed project would occur in several overlapping phases and is anticipated to occur over approximately 36 months. Construction would involve demolition of existing onsite structures and site preparation, and new construction activities would include: grading, shoring and excavation, structural work, exterior skin and interior finishes, and paving. The detailed construction phases for the proposed project are shown in Table 2.

Table 2. Construction Schedule

Phase	Construction Phase	Duration (months)
1	Demolition	2
2	Grading/Shoring/Excavation	6
3	Foundation/Podium	8
4A	Superstructure/Skin	9
4B	Superstructure/Interior work	5
5	Architectural Coating	14

Note: Demolition does not overlap with other construction phases.

All other phases overlap for a period of 2 to 5 months (e.g., Phase 2 overlaps with Phase 3 for 2 months).

Construction activities would generate GHG emissions associated with heavy-duty construction equipment, material-hauling trucks, and construction-worker vehicles. GHG emissions were calculated using project-specific equipment lists and construction schedules estimated by the project sponsor. Table 3 shows the off-road equipment by construction phase, including equipment type, number of pieces, and hours of operation per day.

As indicated in Table 3, the Project would include construction equipment that would be powered by electricity. Therefore, GHG emissions for off-road equipment were estimated for exhaust emissions or electricity consumption, since there are indirect GHG emissions associated with the electricity use, depending on the equipment type.

Construction-related GHG emissions were calculated using the most current version of the California Emissions Estimator Model (CalEEMod), Version 2016.3.1. CalEEMod allows the user to enter project-specific construction information, such as types, number, and horsepower of construction equipment, and number and length of off-site motor vehicle trips. In terms of exhaust emissions rates of the construction equipment fleet in California, emissions rates are expected to decrease over time as stricter standards take effect. Advancements in engine technology, retrofits, and turnover in the equipment fleet are anticipated to result in lower levels of emissions. Emissions were estimated for each year that construction would occur based on emission factors for equipment fleet averages specific to that calendar year.

Table 3. Construction Equipment

Phase	Equipment Type	Number of Pieces	Operating Hours per Day
Demolition	Excavators	4	8
Demolition	Generator Sets	2	8
Demolition	Air Compressors	2	8
Demolition	Signal Board	1	8
Grading/Shoring/Excavation	Excavators	4	10
Grading/Shoring/Excavation	Generator Sets	2	10
Grading/Shoring/Excavation	Signal Board	1	10
Grading/Shoring/Excavation	Pumps - dewatering	12	24
Grading/Shoring/Excavation	Tie-back Klemm drill	2	10
Grading/Shoring/Excavation	Shoring drill rig	1	10
Foundation/Podium	Cranes (electric)	2	12
Foundation/Podium	Manlifts (electric)	2	12
Foundation/Podium	Rough Terrain Forklifts	2	10
Superstructure	Rough Terrain Forklifts	2	10
Superstructure	Cranes (electric)	2	12
Superstructure	Manlifts (electric)	2	12
Architectural Coating	Manlifts (electric)	2	8
Architectural Coating	Scissor lift (electric)	4	8
Architectural Coating	Air Compressors	1	8

Heavy-duty trucks would haul soil and materials on- and off-site during the entire construction period. The project site would be excavated up to approximately 30 feet below grade in the northern portion, and 50 feet in the southern portion. Excavated soil would be approximately 100,000 cubic yards. All the excavated soil is anticipated to be removed from the project site, and disposed at an appropriate facility. The proposed project would generate from a minimum of 8 haul truck trips per day to a maximum of 50 haul trucks per day (when Phases 4 and 5 overlap), which equates to an approximate range of one to six truck round trips per hour, depending on the construction phase.

The proposed project would implement a construction/demolition traffic management plan, since construction workers and contractors are anticipated to drive and park on-site. It is anticipated that there would be an average of 40 to 450 construction workers per day at the project site, depending on the construction phase and given expected overlapping of phases with the greatest number of workers. On average, approximately 170 workers are anticipated to travel to the project site per construction day. The peak of construction would occur during an approximate five-month overlap between proposed project phases 4 and 5, during which time there would be up to 450 construction workers per day at the project site.

Table 4 presents the proposed project's annual and total construction-related emissions. GHG emissions were estimated at an annual maximum of 2,189 metric tons (MT) CO₂e per year

during 2019, and 5,395 MT CO₂e total over the entire 4-year construction period. CalEEMod modeling outputs are provided in Appendix B.

Table 4. Proposed Project Construction-Related GHG Emissions

Construction Year	GHG Emissions (MT CO₂e)
2019	2,189
2020	1,436
2021	1,340
2022	430
Total	5,395

Notes: Totals may not add due to rounding.

MT CO₂e = metric tons of carbon dioxide equivalent.

Source: Modeled by AECOM in 2017

1.6 OPERATIONAL GHG EMISSIONS

Operational emission sources include on-road motor vehicles (mobile), energy (electricity and natural gas), water and wastewater, solid waste, area, and stationary (generators). Mobile source emissions would be generated by vehicle trips from residents, workers, and visitors. Energy sources would include both electricity and natural gas consumption. Natural gas combustion for space and water heating is a direct area source of GHG emissions. Indirect emissions sources include emissions from electricity generation at off-site utility providers.

Consumption of water and generation of wastewater would also result in indirect GHG emissions because of the electricity consumption associated with the off-site conveyance, distribution, and treatment of water and wastewater. Solid waste disposal from operation of the proposed project would result in indirect, off-site GHG emissions. Area-source emissions would be associated with activities such as maintenance of landscaping and grounds. Operation of emergency generators for testing and maintenance would be a source of direct stationary source emissions.

CalEEMod, Version 2016.3.1, was used to estimate operational GHG emissions. As mentioned above, GHG emissions were estimated for the existing auto dealership and the proposed project to determine the net change in operational emissions.

Mobile Sources

Existing trip generation for the auto dealership was calculated using employee and average customer counts. In addition, vehicle starts associated with movement of cars for parking and storage, test drives, and vehicle service and maintenance were estimated based on data provided by the dealership.

Future trip generation for the proposed project was estimated based on the numbers and size of dwelling units and retail land uses. Trip generation estimates were based on a project-specific analysis from the 10 South Van Ness Avenue Mixed-Use Residential Project Transportation Impact Study (CHS Consulting Group 2017). The transportation study evaluated the proposed daily trips from residents, employees, and visitors to the project site.

Mobile source emissions for vehicle starts, trips and miles traveled were estimated using CalEEMod and emission factors from EMFAC 2014. Emission factors for mobile source emissions for the Project would decrease in future years based on the implementation of Pavley I and II, Low Carbon Fuel Standards, and fleet turnover.

Energy Sources

Electricity and natural gas consumption for the existing auto dealership was based on the square footage of the building and default consumption rates in CalEEMod. The consumption estimates for the existing land uses are based on the CalEEMod defaults for historical land uses, which are based on the 2005 Title 24 building energy efficiency standards. This is considered a conservative estimate of existing emissions, since those standards were not implemented when the auto dealership was built.

The operational phase of the proposed project would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, and electronics. Electricity usage associated with the proposed project was estimated at 5,462 MWh per year based on default CalEEMod assumptions. However, the Project would be built to current Title 24 code and CALGreen requirements, which require a higher level of energy, heating, ventilation and air conditioning (HVAC), and lighting efficiencies over the existing land uses.

The proposed project would also include sustainable design measures, including achievement of LEED Silver Certification. At the time of this analysis, the exact LEED credits and Project features that would be selected to achieve LEED Silver Certification (i.e., 50–59 LEED credits) have not yet been determined. The proposed project is proposing to include stormwater and rainwater collection features and a wastewater treatment system. The wastewater treatment system would be sized to treat and utilize recycled water from the proposed building for non-potable uses in the building, including flushing toilets, irrigation, and make-up water for the HVAC system.

Typical electricity service is provided to the project site by Pacific Gas and Electric (PG&E). However, the San Francisco Public Utilities Commission (SFPUC) also provides electricity to the City's municipal facilities and select local residential and business communities. SFPUC operates the Hetch Hetchy Power System is composed of three hydroelectric powerhouses, solar arrays and 2 biogas cogeneration facilities. SFPUC supplies clean energy that has a zero GHG emission profile. The proposed project plans to contract with SFPUC to provide clean electricity to the project site, which would reduce GHG emissions associated with energy use. To account for SFPUC electricity generation, a mitigation measure was included in CalEEMod that assumes 100 percent of electricity was generated with renewable energy.

Although the proposed project plans to include 100 percent renewable energy to the project site, the contract with SFPUC is not in place at the time of the analysis. Therefore, the estimates of operational emissions for the proposed project include both the total electricity-related emissions using traditional sources of electricity generation (i.e., consistent with the carbon intensities for PG&E electricity generation) and using the SFPUC clean electricity source.

The natural gas consumption and emission estimates were based on CalEEMod defaults. Through application of Title 24 and CALGreen requirements, annual natural gas consumption was estimated at 11,396 million British thermal units (MMBtu).

Water and Wastewater Sources

GHG emissions are generated from the use of energy to supply, distribute, and treat water and wastewater. Water-related energy intensities (i.e., kilowatt-hour per gallon of water) in CalEEMod are based on the California Energy Commission's Refining Estimates of Water-Related Energy Use in California.

Water consumption estimates for the existing auto dealership were obtained from CalEEMod defaults. Most commercial and industrial land rates in CalEEMod were obtained from the Pacific Institute's "Waste Not Want Not" report. Based on the default consumption rates, the existing auto dealership used an average of approximately 13.8 million gallons per year.

Proposed annual water demands for the residential and commercial land uses of the proposed project were based on the San Francisco Public Utilities Commission Single Supply Non-Potable Water Calculator (WSA 2017). The proposed project would result in an additional water demand of 42.5 million gallons per year, or a net increase of 28.7 million gallons per year.

Solid Waste Sources

GHG emissions associated with solid waste disposal for the existing auto dealership and proposed project were based on CalEEMod defaults. CalEEMod uses annual waste disposal rates from CalRecycle data for individual land uses and quantifies the GHG emissions associated with the decomposition of the waste. Estimated solid waste generation from the existing auto dealership and proposed project would be approximately 348 tons and 485 tons per year, respectively.

Landscaping/Area Sources

Maintenance of the project site would result in emissions from landscaping and related equipment. Maintenance emissions were calculated using CalEEMod for area sources.

Back-Up Generator Sources

The proposed project was assumed to have one 1,500 kilowatt (kW) (approximately 2,011-horsepower) emergency generator to serve as a back-up power supply and would be located in the garage or on the roof. Operational emissions for the existing generator would result from intermittent use for maintenance and testing purposes. The generator was assumed to run approximately 48 hours per year.

1.7 SUMMARY OF TOTAL GHG EMISSIONS

Annual operational emissions were estimated for the existing auto dealership as well as for construction and operation of the proposed project. As shown in Table 5, the existing auto dealership emissions were estimated to be a maximum of GHG emissions at 657 MT CO₂e per year in 2018. Therefore, the 2018 emissions of 657 MT CO₂e are considered the baseline operational emissions for the purposes of the AB 900 application.

Table 5. Existing Operational GHG Emissions

Source	GHG Emissions (MT CO ₂ e)
Area	<1
Energy	362
Mobile	90
Waste	175
Water	31
Total Operational Emissions	657

Notes: Totals may not add due to rounding.

MT CO₂e = metric tons of carbon dioxide equivalent.

Source: Modeled by AECOM in 2017

As shown in Table 6, the proposed project or single tower project variant operational-related GHG emissions using PG&E electricity were estimated at an annual maximum of 5,054 MT CO₂e per year in 2022 (i.e., the first year of operation) or an annual maximum of 3,326 MT CO₂e per year in 2022 using SFPUC clean electricity.

Table 6. Proposed Project Operational GHG Emissions - 2022

Source	GHG Emissions with PG&E Electricity (MT CO ₂ e)	GHG Emissions with SFPUC Clean Electricity (MT CO ₂ e)
Area	13	13
Energy	2,207	479
Mobile	2,434	2,434
Stationary	37	37
Waste	244	244
Water	119	119
Total Operational Emissions	5,054	3,326

Notes: Totals may not add due to rounding.

MT CO₂e = metric tons of carbon dioxide equivalent.

Source: Modeled by AECOM in 2017

As shown in Tables 7 and 8, annual construction and operational GHG emissions for the proposed project or single tower project variant for 2019 through 2052 were compared to the baseline operational annual GHG emissions for the existing auto dealership for the same timeframe through 2052. As shown in Table 7, the total construction and operational GHG emissions for years 2019 through 2052 for the proposed project or single tower project variant using PG&E electricity were estimated at 122,786 MT CO₂e over baseline operational emissions over the same timeframe. As shown in Table 8, the total construction and operational GHG emissions for years 2019 through 2052 for the proposed project or single tower project variant using SFPUC clean electricity were estimated at 69,981 MT CO₂e over baseline operational emissions over the same timeframe.

Table 7. Existing Operational and Project Construction and Operational GHG Emissions Using PG&E Electricity

Emissions Source	Existing Auto Dealership Operational GHG Emissions (MT CO ₂ e)	Project Construction and Operational GHG Emissions (MT CO ₂ e)	Net Change in GHG Emissions from Baseline (MT CO ₂ e)
2018	657		
2019 ^a	657	2,189	1,532
2020 ^a	657	1,436	779
2021 ^a	657	1,340	683
2022 ^b	657	3,378	2,721
2023	657	5,001	4,344
2024	657	4,949	4,292
2025	657	4,897	4,240
2026	657	4,845	4,188
2027	657	4,792	4,135
2028	657	4,740	4,083
2029	657	4,688	4,031
2030	657	4,636	3,979
2031	657	4,583	3,926
2032	657	4,531	3,874
2033	657	4,520	3,863
2034	657	4,508	3,851
2035	657	4,497	3,840
2036	657	4,486	3,829
2037	657	4,474	3,817
2038	657	4,463	3,806
2039	657	4,451	3,794
2040	657	4,440	3,783
2041	657	4,440	3,783
2042	657	4,440	3,783
2043	657	4,440	3,783
2044	657	4,440	3,783
2045	657	4,440	3,783
2046	657	4,440	3,783
2047	657	4,440	3,783
2048	657	4,440	3,783
2049	657	4,440	3,783
2050	657	4,440	3,783
2051	657	4,440	3,783
2052	657	4,440	3,783
Total			122,786

Emissions shown in parentheses represent negative emissions (i.e., net decrease in emissions from existing conditions).

Totals may not add due to rounding.

^a Project emissions for 2018 through 2021 includes only construction-related emissions. All construction emissions are considered to be a net increase for those analysis years.

^b Project emissions for 2022 include both construction-related and operational emissions. Operational emissions were assumed to start in June 2022, so the annual emissions were estimated at 2,948 MT CO₂e (5,054 x 7 months/12 months) for that year.

Source: Modeled by AECOM in 2017

Table 8. Existing Operational and Project Construction and Operational GHG Emissions Using SFPUC Clean Electricity

Emissions Source	Existing Auto Dealership Operational GHG Emissions (MT CO₂e)	Project Construction and Operational GHG Emissions (MT CO₂e)	Net Change in GHG Emissions from Baseline (MT CO₂e)
2018	657		
2019 ^a	657	2,189	1,532
2020 ^a	657	1,436	779
2021 ^a	657	1,340	683
2022 ^b	657	2,370	1,713
2023	657	3,274	2,617
2024	657	3,222	2,565
2025	657	3,169	2,512
2026	657	3,117	2,460
2027	657	3,065	2,408
2028	657	3,013	2,356
2029	657	2,961	2,304
2030	657	2,908	2,251
2031	657	2,856	2,199
2032	657	2,804	2,147
2033	657	2,793	2,136
2034	657	2,782	2,125
2035	657	2,770	2,113
2036	657	2,759	2,102
2037	657	2,748	2,091
2038	657	2,737	2,080
2039	657	2,725	2,068
2040	657	2,714	2,057
2041	657	2,714	2,057
2042	657	2,714	2,057
2043	657	2,714	2,057
2044	657	2,714	2,057
2045	657	2,714	2,057
2046	657	2,714	2,057
2047	657	2,714	2,057
2048	657	2,714	2,057
2049	657	2,714	2,057
2050	657	2,714	2,057
2051	657	2,714	2,057
2052	657	2,714	2,057
Total			69,981

Emissions shown in parentheses represent negative emissions (i.e., net decrease in emissions from existing conditions).

Totals may not add due to rounding.

^a Project emissions for 2018 through 2021 includes only construction-related emissions. All construction emissions are considered to be a net increase for those analysis years.

^b Project emissions for 2022 include both construction-related and operational emissions. Operational emissions were assumed to start in June 2022, so the annual emissions were estimated at 1,940 MT CO₂e (3,326 x 7 months/12 months) for that year.

Source: Modeled by AECOM in 2017

1.8 MEASURES FOR OFFSETTING NET INCREASE GHG EMISSIONS

To apply for AB 900 CEQA streamlining, a project cannot result in a net increase of GHG emissions compared to existing emissions. The following project design features or mitigation measures would be required.

LEED Silver Certification

The proposed project or single tower project variant, upon completion, will qualify for LEED silver certification or better. The application will specify those design elements that make the proposed project or single tower project variant eligible for LEED silver certification or better, and the applicant will submit a binding commitment to delay operating the proposed project or single tower project variant until it receives LEED silver certification or better.

SFPUC Electrical Power

The proposed project or single tower project variant plans to contract with SFPUC to provide electrical power consisting of 100% renewable energy to the project site.

Voluntary Carbon Credits

Calculations of construction and operational emissions that span the useful lifetime of the proposed project or single tower project variant performed with methodology agreed upon by ARB in connection with the AB 900 certification shall be developed. Courtesy copies of the operational calculations shall be provided to ARB and the Governor's office as part of the AB 900 application. One or more contracts shall be executed to purchase voluntary carbon credits from a verified GHG emissions credit broker in an amount sufficient to offset construction and operational GHG emissions over the lifetime of the proposed project or single tower project variant. The estimate of carbon credits shall incorporate whether the proposed project or single tower project variant contracts with SFPUC to provide 100% renewable energy to the project site. Carbon credits shall be purchased at a net present value although the contracts could propose acquiring the credits in advance of the emission-generating activities to be offset. Copies of the contract(s) shall be provided to ARB and the Governor's office to verify that construction and lifetime operational emissions have been offset. The improvement measure will become effective after final approval and certification of the AB 900 application by the Governor's office.

1.9 CONCLUSION

With application of the aforementioned measures for offsetting the anticipated net increase in GHG emissions, the proposed project or single tower project variant would not result in a net increase in GHG emissions over the identified baseline.

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SECTION 2

REFERENCES

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SECTION 3

REPORT PREPARERS

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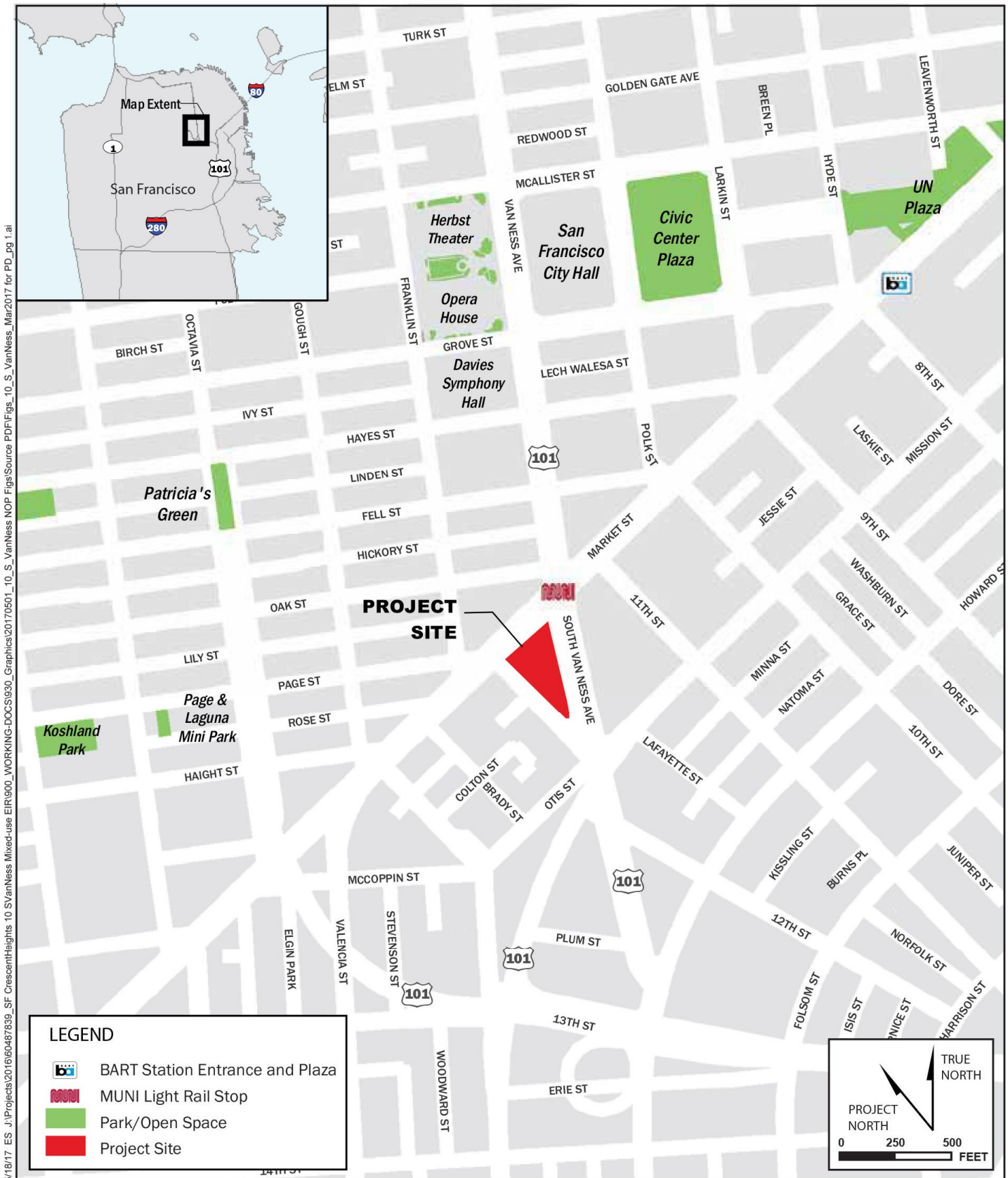
Paola Pena, Air Quality Scientist

Kelsey Bennett, Associate Principal/Senior Project Manager

APPENDIX A

PROJECT MAPS

A-1 Project Location and Vicinity Map



A-2 Project Site

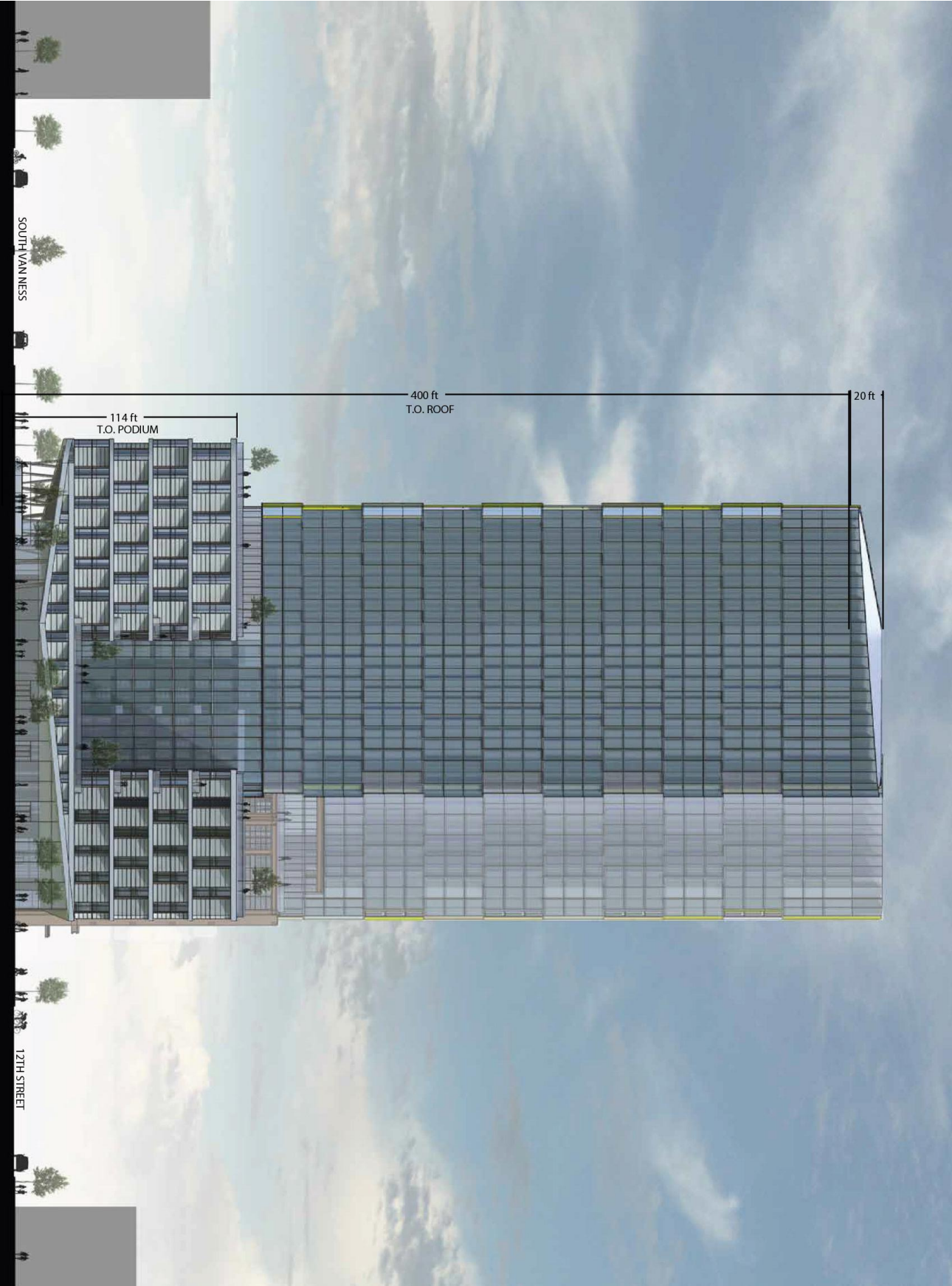


A-3 Proposed Project Elevations



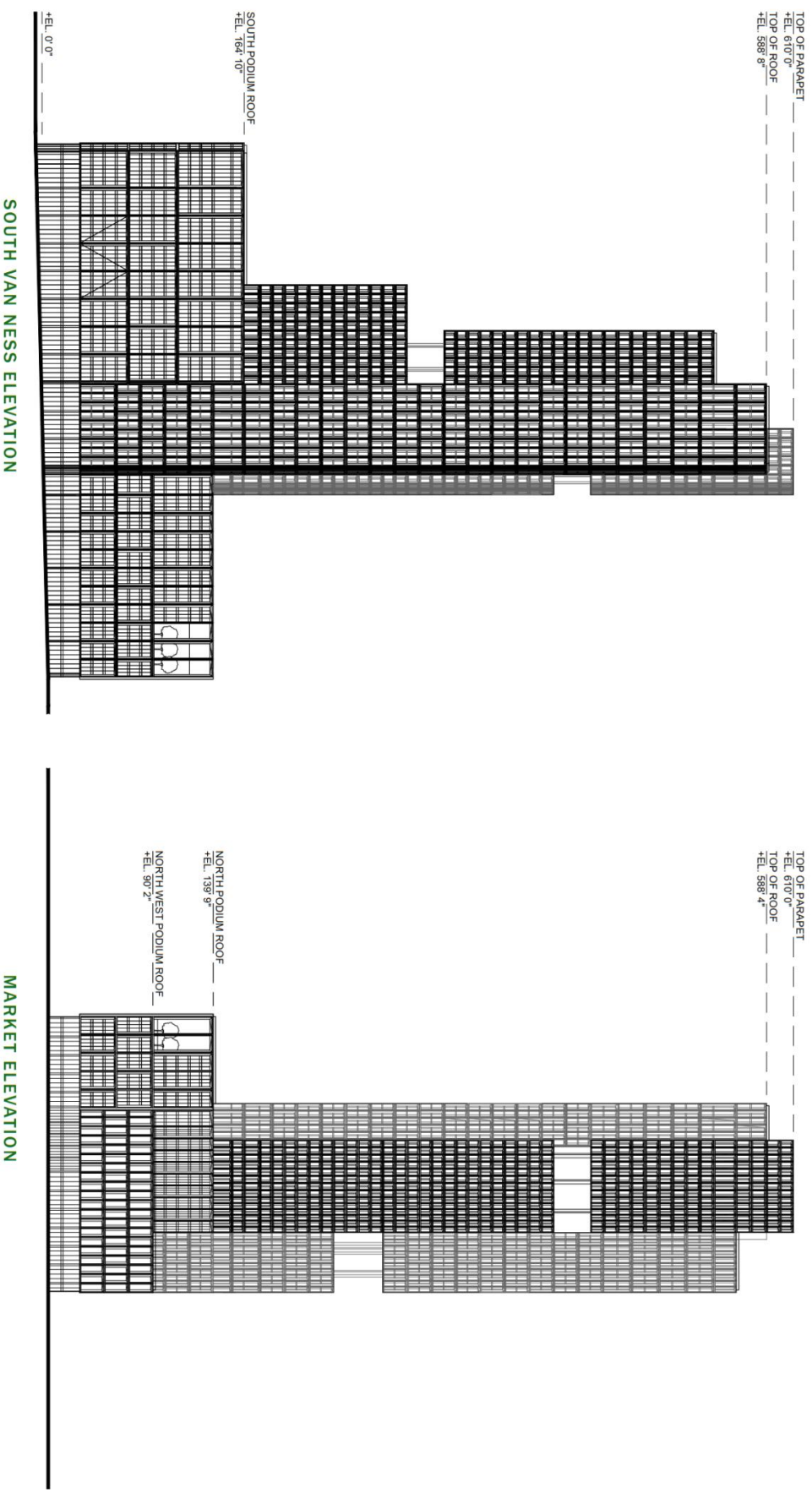
Source: 10 S/VN LLC, 2017

Proposed Project – Building Elevation Looking West toward Project Site from South Van Ness Avenue



Source: 10 SVN LLC, 2017
Proposed Project – Building Elevation Looking South Toward Project Site from Market Street

ELEVATIONS



Source: KPF Associates, 2017

Single Tower Project Variant – Building Elevations Looking West and South Toward Project Site from South Van Ness Avenue and Market Street

APPENDIX B

CALEEMOD AND GREENHOUSE GAS MODELING DATA

Summary of Construction and Operational GHG Emissions Using PGElectricity

Annual GHG Emissions

Emissions Source	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Existing Car Dealership	657	-																
AB 900 Baseline Emissions		657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657
Construction		2,189	1,436	1,340	430													
10 S/N Operations					2,948	5,001	4,949	4,897	4,845	4,792	4,740	4,688	4,636	4,583	4,531	4,520	4,508	4,497
Total Project Emissions	-	2,189	1,436	1,340	3,378	5,001	4,949	4,897	4,845	4,792	4,740	4,688	4,636	4,583	4,531	4,520	4,508	4,497
Net Change	-	1,532	779	883	2,721	4,344	4,292	4,240	4,188	4,135	4,083	4,031	3,979	3,926	3,874	3,863	3,851	3,840
Cumulative Total		1,532	2,311	2,994	5,715	10,059	14,352	18,591	22,779	26,914	30,998	35,028	39,007	42,833	46,607	50,670	54,521	58,361

Emissions Source	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
Existing Car Dealership																	
AB 900 Baseline Emissions	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657
Construction																	
10 S/N Operations	4,486	4,474	4,463	4,451	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440
Total Project Emissions	4,486	4,474	4,463	4,451	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440	4,440
Net Change	3,829	3,817	3,806	3,794	3,783	3,783	3,783	3,783	3,783	3,783	3,783	3,783	3,783	3,783	3,783	3,783	3,783
Cumulative Total	62,189	66,007	69,812	73,607	77,390	81,173	84,956	88,739	92,522	96,305	100,088	103,871	107,654	111,437	115,220	119,008	122,786

Summary of Construction and Operational GHG Emissions Using SPPUClean Electricity

Annual GHG Emissions

Emissions Source	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Existing Car Dealership	657	-																
AB 900 Baseline Emissions		657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657
Construction		2,189	1,436	1,340	430													
10 SN/Operations					1,940	3,274	3,222	3,169	3,117	3,065	3,013	2,961	2,908	2,856	2,804	2,793	2,782	2,770
Total Project Emissions	-	2,189	1,436	1,340	2,370	3,274	3,222	3,169	3,117	3,065	3,013	2,961	2,908	2,856	2,804	2,793	2,782	2,770
Net Change		1,532	779	683	1,713	2,617	2,565	2,512	2,460	2,408	2,356	2,304	2,251	2,199	2,147	2,136	2,125	2,113
Cumulative Total	-	1,532	2,311	2,994	4,707	7,324	9,889	12,401	14,861	17,269	19,625	21,929	24,180	26,379	28,526	30,662	32,786	34,900

Emissions Source	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052
Existing Car Dealership																	
AB 900 Baseline Emissions	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657	657
Construction																	
10 SN/Operations	2,759	2,748	2,737	2,725	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714
Total Project Emissions	2,759	2,748	2,737	2,725	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714	2,714
Net Change	2,102	2,091	2,080	2,068	2,057	2,057	2,057	2,057	2,057	2,057	2,057	2,057	2,057	2,057	2,057	2,057	2,057
Cumulative Total	37,002	39,092	41,172	43,240	45,297	47,354	49,411	51,468	53,525	55,582	57,639	59,696	61,753	63,810	65,867	67,924	69,981

Existing Honda Dealership - San Francisco County, Annual

Existing Honda Dealership
San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Automobile Care Center	91.09	1000sqft	1.10	91,088.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	4.6	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MMWhr)	641.35	CH4 Intensity (lb/MMWhr)	0.029	N2O Intensity (lb/MMWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Existing Honda Dealership - San Francisco County, Annual

Project Characteristics -

Land Use - Land use to account for existing auto dealership.

Construction Phase - No construction emissions. Operations only run.

Off-road Equipment - No construction emissions. Operations only run.

Off-road Equipment - No construction emissions. Operations only run.

Grading - No construction emissions. Operations only run.

Trips and VMT - No construction emissions. Operations only run.

Architectural Coating - No construction emissions. Operations only run.

Vehicle Trips - Based on Honda Data Request (1/05/2017)

Consumer Products - Emission factor recommended by Environmental Planning.

Energy Use - Adjusted to Historical Data - 2005.

Existing Honda Dealership - San Francisco County, Annual

Table Name	Column Name	Default Value	New Value
tb\ArchitecturalCoating	ConstArea_Nonresidential_Exterior	45,544.00	0.00
tb\ArchitecturalCoating	ConstArea_Nonresidential_Interior	136,632.00	0.00
tb\ConstructionPhase	NumDays	10.00	0.00
tb\ConstructionPhase	NumDays	2.00	0.00
tb\ConsumerProducts	ROG_EF	2.14E-05	1.51E-05
tb\LandUse	LotAcreage	2.09	1.10
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tb\OffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tb\TripsAndVMT	WorkerTripNumber	6.00	0.00
tb\TripsAndVMT	WorkerTripNumber	8.00	0.00
tb\VehicleTrips	ST_TR	23.72	1.94
tb\VehicleTrips	SU_TR	11.88	1.94
tb\VehicleTrips	WD_TR	23.72	1.94

2.0 Emissions Summary

Existing Honda Dealership - San Francisco County, Annual

2.1 Overall Construction

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

Existing Honda Dealership - San Francisco County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational**Unmitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	0.2986	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003
Energy	0.0132	0.1204	0.1011	7.2000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	360.2596	360.2596	0.0129	4.5500e-003	361.9365
Mobile	0.0432	0.1377	0.3626	8.7000e-004	0.0660	1.4600e-003	0.0675	0.0178	1.3800e-003	0.0192	0.0000	79.4349	79.4349	4.4500e-003	0.0000	79.5462
Waste						0.0000	0.0000		0.0000	0.0000	70.6327	0.0000	70.6327	4.1743	0.0000	174.9896
Water						0.0000	0.0000		0.0000	0.0000	2.7188	18.8380	21.5568	0.2801	6.7700e-003	30.5768
Total	0.3550	0.2581	0.4645	1.5900e-003	0.0660	0.0106	0.0766	0.0178	0.0105	0.0263	73.3516	458.5342	531.8858	4.4717	0.0113	647.0508

Existing Honda Dealership - San Francisco County, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOX	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2986	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003
Energy	0.0132	0.1204	0.1011	7.2000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	360.2596	360.2596	0.0129	4.5500e-003	361.9365
Mobile	0.0432	0.1377	0.3626	8.7000e-004		0.0660	1.4600e-003	0.0675	0.0178	1.3800e-003	0.0000	79.4349	79.4349	4.4500e-003	0.0000	79.5462
Waste						0.0000	0.0000		0.0000	0.0000	70.6327	0.0000	70.6327	4.1743	0.0000	174.9896
Water						0.0000	0.0000		0.0000	0.0000	2.7188	18.8380	21.5568	0.2801	6.7700e-003	30.5768
Total	0.3550	0.2581	0.4645	1.5900e-003	0.0660	0.0106	0.0766	0.0178	0.0105	0.0283	73.3516	458.5342	531.8858	4.4717	0.0113	647.0508

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	3/29/2017	3/28/2017	5	0	
2	Site Preparation	Site Preparation	3/29/2017	3/28/2017	5	0	

Existing Honda Dealership - San Francisco County, Annual

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Existing Honda Dealership - San Francisco County, Annual

3.3 Site Preparation - 2017

Unmitigated Construction On-Site

[illegible]

Unmitigated Construction Off-Site

[illegible]

Existing Honda Dealership - San Francisco County, Annual

3.3 Site Preparation - 2017**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

Existing Honda Dealership - San Francisco County, Annual

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO _{2e}
	tons/yr										MT/yr					
Mitigated	0.0432	0.1377	0.3626	8.7000e-004	0.0660	1.4600e-003	0.0675	0.0178	1.3800e-003	0.0192	0.0000	79.4349	79.4349	4.4500e-003	0.0000	79.5462
Unmitigated	0.0432	0.1377	0.3626	8.7000e-004	0.0660	1.4600e-003	0.0675	0.0178	1.3800e-003	0.0192	0.0000	79.4349	79.4349	4.4500e-003	0.0000	79.5462

4.2 Trip Summary Information

		Average Daily Trip Rate			Unmitigated		Mitigated	
Land Use		Weekday	Saturday	Sunday	Annual VMT		Annual VMT	
Automobile Care Center		176.71	176.71	176.71	176,037		176,037	
Total		176.71	176.71	176.71	176,037		176,037	

4.3 Trip Type Information

		Miles			Trip %			Trip Purpose %		
Land Use		H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center		9.50	7.30	7.30	33.00	48.00	19.00	21	51	28

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.607457	0.043280	0.189736	0.085483	0.016529	0.004717	0.025536	0.008452	0.004257	0.005767	0.007445	0.000915	0.000425

Existing Honda Dealership - San Francisco County, Annual

5.0 Energy Detail

Historical Energy Use: Y

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	229.2124	229.2124	0.0104	2.1400e-003	230.1105
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	229.2124	229.2124	0.0104	2.1400e-003	230.1105
NaturalGas Mitigated	0.0132	0.1204	0.1011	7.2000e-004	9.1500e-003	9.1500e-003	9.1500e-003	9.1500e-003	9.1500e-003	9.1500e-003	0.0000	131.0472	131.0472	2.5100e-003	2.4000e-003	131.8260
NaturalGas Unmitigated	0.0132	0.1204	0.1011	7.2000e-004	9.1500e-003	9.1500e-003	9.1500e-003	9.1500e-003	9.1500e-003	9.1500e-003	0.0000	131.0472	131.0472	2.5100e-003	2.4000e-003	131.8260

Existing Honda Dealership - San Francisco County, Annual

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Land Use	KBTU/yr	tons/yr											MT/yr					
Automobile Care Center	2.45573e+006	0.0132	0.1204	0.1011	7.2000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	131.0472	131.0472	2.5100e-003	2.4000e-003	131.8260	
Total		0.0132	0.1204	0.1011	7.2000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	131.0472	131.0472	2.5100e-003	2.4000e-003	131.8260	

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	KBTU/yr	tons/yr											MT/yr				
Automobile Care Center	2.45573e+006	0.0132	0.1204	0.1011	7.2000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	131.0472	131.0472	2.5100e-003	2.4000e-003	131.8260
Total		0.0132	0.1204	0.1011	7.2000e-004		9.1500e-003	9.1500e-003		9.1500e-003	9.1500e-003	0.0000	131.0472	131.0472	2.5100e-003	2.4000e-003	131.8260

Existing Honda Dealership - San Francisco County, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	787911	229.2124	0.0104	2.1400e-003	230.1105
Total		229.2124	0.0104	2.1400e-003	230.1105

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	787911	229.2124	0.0104	2.1400e-003	230.1105
Total		229.2124	0.0104	2.1400e-003	230.1105

6.0 Area Detail**6.1 Mitigation Measures Area**

Existing Honda Dealership - San Francisco County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2986	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003
Unmitigated	0.2986	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0475					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Consumer Products	0.2510					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003
Total	0.2986	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003

Existing Honda Dealership - San Francisco County, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0475					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2510					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003
Total	0.2986	1.0000e-005	8.5000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6300e-003	1.6300e-003	0.0000	0.0000	1.7400e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Existing Honda Dealership - San Francisco County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	21.5568	0.2801	6.7700e-003	30.5768
Unmitigated	21.5568	0.2801	6.7700e-003	30.5768

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	8.56985 / 5.25249	21.5568	0.2801	6.7700e-003	30.5768
Total		21.5568	0.2801	6.7700e-003	30.5768

Existing Honda Dealership - San Francisco County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	8,569.85 / 5,252.49	21.5568	0.2801	6.7700e-003	30.5768
Total		21.5568	0.2801	6.7700e-003	30.5768

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	70.6327	4.1743	0.0000	174.9896
Unmitigated	70.6327	4.1743	0.0000	174.9896

Existing Honda Dealership - San Francisco County, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	347.96	70.6327	4.1743	0.0000	174.9896
Total		70.6327	4.1743	0.0000	174.9896

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	347.96	70.6327	4.1743	0.0000	174.9896
Total		70.6327	4.1743	0.0000	174.9896

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Existing Honda Dealership - San Francisco County, Annual

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

GHG Emissions from Vehicle Starts

GHG (CO ₂) Vehicle Starts					
	g/trip	lb/trip	lbs/week	lbs/yr	MT/yr
CO ₂	53.4278	0.117788	424.0378	22049.96	10.0

Assumptions:

Model Year 2018 Passenger Cars

Number of vehicle starts per week 3600

Source: Based on Honda Dealership PFI for total number of vehicle starts for test drives.

Units

1 lb 453.592 g

1 yr 52 weeks

1 MT 2204.62 lbs

EMFAC2014 (v1.0.7) Emission Rates

Region Type: County

Region: San Francisco

Calendar Year: 2018

Season: Annual

Vehicle Classification: EMFAC2011 Categories

Units: miles/day for VMT, trips/day for Trips, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HTSK and RUNLS, g/vehicle/day for IDLEX, RESTL and DIURN

Region	CalYr	VehClass	MdlYr	Speed	Fuel	Trips	CO2_RUNEX	CO2_STREX
San Francisco	2018	LDA	1974	Aggregater	GAS	541.8814	530.1155168	198.7381
San Francisco	2018	LDA	1975	Aggregater	GAS	290.8486	566.6143084	122.0441
San Francisco	2018	LDA	1976	Aggregater	GAS	265.6752	566.6552444	124.3371
San Francisco	2018	LDA	1977	Aggregater	GAS	260.0372	566.7003188	120.7765
San Francisco	2018	LDA	1978	Aggregater	GAS	338.4597	566.6920838	116.159
San Francisco	2018	LDA	1979	Aggregater	GAS	445.1072	566.6815931	119.3677
San Francisco	2018	LDA	1980	Aggregater	GAS	269.077	566.7212146	109.4536
San Francisco	2018	LDA	1981	Aggregater	GAS	284.6811	413.2266707	80.43913
San Francisco	2018	LDA	1982	Aggregater	GAS	339.4546	413.2134028	80.289
San Francisco	2018	LDA	1983	Aggregater	GAS	470.0798	413.2499584	80.0183
San Francisco	2018	LDA	1984	Aggregater	GAS	738.0052	413.3034132	80.0105
San Francisco	2018	LDA	1985	Aggregater	GAS	949.0435	413.3498539	79.58684
San Francisco	2018	LDA	1986	Aggregater	GAS	1181.585	390.0399147	74.84813
San Francisco	2018	LDA	1987	Aggregater	GAS	1605.464	390.0150112	74.47785
San Francisco	2018	LDA	1988	Aggregater	GAS	1702.221	390.0393828	74.12592
San Francisco	2018	LDA	1989	Aggregater	GAS	2111.244	390.0307866	73.59003
San Francisco	2018	LDA	1990	Aggregater	GAS	2719.762	390.1044591	73.4168
San Francisco	2018	LDA	1991	Aggregater	GAS	3222.208	390.1044586	73.4162
San Francisco	2018	LDA	1992	Aggregater	GAS	3238.079	390.1208588	73.41693
San Francisco	2018	LDA	1993	Aggregater	GAS	3657.996	363.6464758	69.11325
San Francisco	2018	LDA	1994	Aggregater	GAS	4591.721	362.6570508	69.4416
San Francisco	2018	LDA	1995	Aggregater	GAS	6541.053	362.1608667	69.47655
San Francisco	2018	LDA	1996	Aggregater	GAS	6764.164	361.6556179	69.40097
San Francisco	2018	LDA	1997	Aggregater	GAS	9675.095	360.9507829	69.16261
San Francisco	2018	LDA	1998	Aggregater	GAS	12486.9	358.3815644	68.31974
San Francisco	2018	LDA	1999	Aggregater	GAS	15493.99	355.8058215	67.47719
San Francisco	2018	LDA	2000	Aggregater	GAS	20570.18	363.7402716	68.64298
San Francisco	2018	LDA	2001	Aggregater	GAS	25270.05	363.7402716	68.64298
San Francisco	2018	LDA	2002	Aggregater	GAS	26483.11	363.7402716	68.64298
San Francisco	2018	LDA	2003	Aggregater	GAS	31643.04	364.7247003	69.17246
San Francisco	2018	LDA	2004	Aggregater	GAS	32908.24	374.3215523	74.33419
San Francisco	2018	LDA	2005	Aggregater	GAS	38336.26	374.3215523	74.33419
San Francisco	2018	LDA	2006	Aggregater	GAS	41684.44	374.3215523	74.33419
San Francisco	2018	LDA	2007	Aggregater	GAS	47328.35	374.3215523	74.33419
San Francisco	2018	LDA	2008	Aggregater	GAS	44153.33	374.3215523	74.33419
San Francisco	2018	LDA	2009	Aggregater	GAS	36800.7	374.3215523	74.33419
San Francisco	2018	LDA	2010	Aggregater	GAS	47770.09	374.3215523	74.33419
San Francisco	2018	LDA	2011	Aggregater	GAS	44828.54	374.3353068	74.33419
San Francisco	2018	LDA	2012	Aggregater	GAS	58058.04	340.9452396	67.70122
San Francisco	2018	LDA	2013	Aggregater	GAS	69101.16	331.9016175	65.90302
San Francisco	2018	LDA	2014	Aggregater	GAS	76356.37	321.5623096	63.84768
San Francisco	2018	LDA	2015	Aggregater	GAS	83250.28	308.3229927	61.2167
San Francisco	2018	LDA	2016	Aggregater	GAS	89950.91	295.4720354	58.66302
San Francisco	2018	LDA	2017	Aggregater	GAS	91476.04	278.4236412	55.2762
San Francisco	2018	LDA	2018	Aggregater	GAS	79412.64	269.1232944	53.42782

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	518.00	Space	0.00	102,000.00	0
Apartments High Rise	984.00	Dwelling Unit	1.10	938,745.00	1978
Strip Mall	30.35	1000sqft	0.00	30,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	4.6	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2022

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MMWhr)	641.35	CH4 Intensity (lb/MMWhr)	0.029	N2O Intensity (lb/MMWhr)	0.006
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1.3 User Entered Comments & Non-Default Data

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Project Characteristics - Project location

Land Use - Total lot acreage included in residential land use type. Rooftop mechanical equipment included in residential square footage.

Construction Phase - Project specific schedule

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment

Off-road Equipment - Project specific equipment. Cranes and aerial lifts assumed to be electric.

Off-road Equipment - Project specific equipment. Aerial lifts estimated to be electric.

Off-road Equipment - Project specific equipment. Cranes and aerial lifts estimated to be electric.

Off-road Equipment - Project specific equipment. Cranes and aerial lifts estimated to be electric.

Off-road Equipment - Project specific equipment.

Trips and VMT - Project specific workers and haul truck trips estimates based on 8-50 truck trips/day. Vendor trips included in haul truck trips.

Demolition -

Grading - Acres graded consisten with project acreage.

Architectural Coating -

Vehicle Trips - Construction emission estimates only.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Woodstoves - Construction emission estimates only.

Consumer Products - Construction emission estimates only.

Area Coating - Construction emission estimates only.

Energy Use - Construction emission estimates only.

Water And Wastewater - Construction emission estimates only.

Solid Waste - Construction emission estimates only.

Construction Off-road Equipment Mitigation - Cranes and aerial lifts assumed to be electrical.

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Table Name	Column Name	Default Value	New Value
tb\AreaCoating	Area_Nonresidential_Exterior	15175	0
tb\AreaCoating	Area_Nonresidential_Interior	45525	0
tb\AreaCoating	Area_Parking	6120	0
tb\AreaCoating	Area_Residential_Exterior	633653	0
tb\AreaCoating	Area_Residential_Interior	1900959	0
tb\ConstDustMitigation	WaterUnpavedRoadVehicleSpeed	40	0
tb\ConstEquipMitigation	FuelType	Diesel	Electrical
tb\ConstEquipMitigation	FuelType	Diesel	Electrical
tb\ConstEquipMitigation	NumberOfEquipmentMitigated	0.00	12.00
tb\ConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tb\ConstructionPhase	NumDays	10.00	392.00
tb\ConstructionPhase	NumDays	200.00	209.00
tb\ConstructionPhase	NumDays	200.00	234.00
tb\ConstructionPhase	NumDays	200.00	132.00
tb\ConstructionPhase	NumDays	20.00	52.00
tb\ConstructionPhase	NumDays	4.00	158.00
tb\ConstructionPhase	NumDays/Week	5.00	6.00
tb\ConstructionPhase	NumDays/Week	5.00	6.00
tb\ConstructionPhase	NumDays/Week	5.00	6.00
tb\ConstructionPhase	NumDays/Week	5.00	6.00
tb\ConstructionPhase	NumDays/Week	5.00	6.00
tb\ConstructionPhase	NumDays/Week	5.00	6.00
tb\ConstructionPhase	PhaseEndDate	3/4/2023	5/31/2022
tb\ConstructionPhase	PhaseEndDate	10/1/2020	7/31/2020
tb\ConstructionPhase	PhaseEndDate	7/1/2021	2/27/2021
tb\ConstructionPhase	PhaseEndDate	12/2/2021	7/31/2021

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tbConstructionPhase	PhasesStartDate	12/3/2021	3/1/2021
tbConstructionPhase	PhasesStartDate	2/1/2020	12/1/2019
tbConstructionPhase	PhasesStartDate	10/2/2020	6/1/2020
tbConstructionPhase	PhasesStartDate	7/2/2021	3/1/2021
tbEnergyUse	NT24E	3,277.06	0.00
tbEnergyUse	NT24E	0.19	0.00
tbEnergyUse	NT24E	3.36	0.00
tbEnergyUse	T24E	502.89	0.00
tbEnergyUse	T24E	3.92	0.00
tbEnergyUse	T24E	2.35	0.00
tbFireplaces	NumberGas	147.60	0.00
tbFireplaces	NumberNoFireplace	39.36	0.00
tbFireplaces	NumberWood	167.28	0.00
tbGrading	AcresOfGrading	0.00	1.10
tbGrading	MaterialExported	0.00	100,000.00
tbLandUse	BuildingSpaceSquareFeet	207,200.00	102,000.00
tbLandUse	BuildingSpaceSquareFeet	984,000.00	938,745.00
tbLandUse	LandUseSquareFeet	207,200.00	102,000.00
tbLandUse	LandUseSquareFeet	984,000.00	938,745.00
tbLandUse	LotAcreage	4.66	0.00
tbLandUse	LotAcreage	15.87	1.10
tbLandUse	LotAcreage	0.70	0.00
tbLandUse	Population	2,814.00	1,978.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00

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tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tbOffRoadEquipment	PhaseName		Architectural Coating
tbOffRoadEquipment	PhaseName		Architectural Coating
tbOffRoadEquipment	UsageHours	6.00	8.00
tbOffRoadEquipment	UsageHours	6.00	12.00
tbOffRoadEquipment	UsageHours	6.00	12.00
tbOffRoadEquipment	UsageHours	6.00	12.00
tbOffRoadEquipment	UsageHours	6.00	10.00
tbOffRoadEquipment	UsageHours	6.00	10.00
tbOffRoadEquipment	UsageHours	6.00	10.00

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tbOffRoadEquipment	UsageHours	6.00	10.00
tbProjectCharacteristics	Operational Year	2018	2022
tbSolidWaste	SolidWasteGenerationRate	452.64	0.00
tbSolidWaste	SolidWasteGenerationRate	31.87	0.00
tbTripsAndVMT	HaulingTripNumber	12,500.00	3,950.00
tbTripsAndVMT	HaulingTripNumber	0.00	5,225.00
tbTripsAndVMT	HaulingTripNumber	0.00	5,850.00
tbTripsAndVMT	HaulingTripNumber	0.00	3,300.00
tbTripsAndVMT	HaulingTripNumber	0.00	6,500.00
tbTripsAndVMT	VendorTripNumber	127.00	0.00
tbTripsAndVMT	VendorTripNumber	127.00	0.00
tbTripsAndVMT	VendorTripNumber	127.00	0.00
tbTripsAndVMT	WorkerTripNumber	23.00	80.00
tbTripsAndVMT	WorkerTripNumber	55.00	120.00
tbTripsAndVMT	WorkerTripNumber	761.00	200.00
tbTripsAndVMT	WorkerTripNumber	761.00	600.00
tbTripsAndVMT	WorkerTripNumber	761.00	200.00
tbTripsAndVMT	WorkerTripNumber	152.00	700.00
tbVehicleTrips	ST_TR	4.98	0.00
tbVehicleTrips	ST_TR	42.04	0.00
tbVehicleTrips	SU_TR	3.65	0.00
tbVehicleTrips	SU_TR	20.43	0.00
tbVehicleTrips	WD_TR	4.20	0.00
tbVehicleTrips	WD_TR	44.32	0.00
tbWater	IndoorWaterUseRate	64,111,561.21	0.00
tbWater	IndoorWaterUseRate	2,248,101.03	0.00
tbWater	OutdoorWaterUseRate	40,418,158.16	0.00

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tbWater	OutdoorWaterUseRate	1,377,868.37	0.00
tbWoodstoves	NumberCatalytic	19.68	0.00
tbWoodstoves	NumberNoncatalytic	19.68	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

Year	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
2019	1.4980	13.2386	12.5033	0.0250	0.2325	0.7197	0.9522	0.0541	0.7119	0.7660	0.0000	2,208.622 ⁸	2,208.622 ⁸	0.2740	0.0000	2,215.471 ⁵
2020	0.8557	7.9648	6.7886	0.0194	0.7242	0.3048	1.0290	0.1909	0.2892	0.4801	0.0000	1,792.931 ⁸	1,792.931 ⁸	0.2686	0.0000	1,799.647 ³
2021	5.1553	4.2339	5.4016	0.0177	1.0675	0.1143	1.1818	0.2838	0.1066	0.3904	0.0000	1,651.545 ⁶	1,651.545 ⁶	0.2042	0.0000	1,656.650 ⁹
2022	2.3965	0.7660	1.6408	5.3400e-003	0.4023	0.0153	0.4175	0.1066	0.0146	0.1212	0.0000	495.5062	495.5062	0.0463	0.0000	496.6647
Maximum	5.1553	13.2386	12.5033	0.0250	1.0675	0.7197	1.1818	0.2838	0.7119	0.7660	0.0000	2,208.622 ⁸	2,208.622 ⁸	0.2740	0.0000	2,215.471 ⁵

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9	6-1-2021	8-31-2021	1.9669	1.7908
10	9-1-2021	11-30-2021	1.9625	1.7883
11	12-1-2021	2-28-2022	1.9198	1.7549
12	3-1-2022	5-31-2022	1.9310	1.7664
		Highest	8.0314	8.0314

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.0128	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330
Energy	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	942.6027	942.6027	0.0268	0.0143	947.5272
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.0742	0.6100	7.5457	3.7400e-003	0.0000	0.0829	0.0829	0.0000	0.0829	0.0829	0.0000	954.5473	954.5473	0.0383	0.0143	959.7603

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2.2 Overall Operational

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr											MT/yr					
Area	4.0128	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330
Energy	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	942.6027	942.6027	0.0268	0.0143	947.5272
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.0742	0.6100	7.5457	3.7400e-003	0.0000	0.0829	0.0829	0.0000	0.0829	0.0829	0.0000	954.5473	954.5473	0.0383	0.0143	959.7603

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2019	7/31/2019	6	52	
2	Grading Shoring Excavation	Grading	8/1/2019	1/31/2020	6	158	
3	Building Construction Foundation	Building Construction	12/1/2019	7/31/2020	6	209	
4	4A. Building Construction Superstructure	Building Construction	6/1/2020	2/27/2021	6	234	
5	4B. Superstructure Interior	Building Construction	3/1/2021	7/31/2021	6	132	
6	Architectural Coating	Architectural Coating	3/1/2021	5/31/2022	6	392	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 1,900,959; Residential Outdoor: 633,653; Non-Residential Indoor: 45,525; Non-Residential Outdoor: 15,175; Striped Parking Area: 6,120 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Air Compressors	2	8.00	78	0.48
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Excavators	4	8.00	158	0.38
Demolition	Generator Sets	2	8.00	84	0.74
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Signal Boards	1	8.00	6	0.82
Demolition	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Grading Shoring Excavation	Bore/Drill Rigs	3	10.00	221	0.50
Grading Shoring Excavation	Excavators	4	10.00	158	0.38
Grading Shoring Excavation	Generator Sets	2	10.00	84	0.74

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Grading Shoring Excavation	Graders	0	6.00	187	0.41
Grading Shoring Excavation	Pumps	12	24.00	84	0.74
Grading Shoring Excavation	Rubber Tired Dozers	0	6.00	247	0.40
Grading Shoring Excavation	Signal Boards	1	10.00	6	0.82
Grading Shoring Excavation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Building Construction Foundation	Aerial Lifts	2	12.00	63	0.31
Building Construction Foundation	Cranes	2	12.00	231	0.29
Building Construction Foundation	Forklifts	2	10.00	89	0.20
Building Construction Foundation	Generator Sets	0	8.00	84	0.74
Building Construction Foundation	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Building Construction Foundation	Welders	0	8.00	46	0.45
4A. Building Construction Superstructure	Aerial Lifts	2	12.00	63	0.31
4A. Building Construction Superstructure	Cranes	2	12.00	231	0.29
4A. Building Construction Superstructure	Forklifts	2	10.00	89	0.20
4A. Building Construction Superstructure	Generator Sets	0	8.00	84	0.74
4A. Building Construction Superstructure	Tractors/Loaders/Backhoes	0	6.00	97	0.37
4A. Building Construction Superstructure	Welders	0	8.00	46	0.45
4B. Superstructure Interior	Aerial Lifts	2	12.00	63	0.31
4B. Superstructure Interior	Cranes	2	12.00	231	0.29
4B. Superstructure Interior	Forklifts	2	10.00	89	0.20
4B. Superstructure Interior	Generator Sets	0	8.00	84	0.74
4B. Superstructure Interior	Tractors/Loaders/Backhoes	0	6.00	97	0.37
4B. Superstructure Interior	Welders	0	8.00	46	0.45
Architectural Coating	Aerial Lifts	2	12.00	63	0.31
Architectural Coating	Aerial Lifts	4	8.00	63	0.31
Architectural Coating	Air Compressors	1	8.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition		9	80.00	0.00	414.00	10.80	7.30	20.00:LD_Mix	HDT_Mix	HHDT
Grading Shoring		22	120.00	0.00	3,950.00	10.80	7.30	20.00:LD_Mix	HDT_Mix	HHDT
Excavation										
Building Construction		6	200.00	0.00	5,225.00	10.80	7.30	20.00:LD_Mix	HDT_Mix	HHDT
Foundation										
4A. Building Construction		6	600.00	0.00	5,850.00	10.80	7.30	20.00:LD_Mix	HDT_Mix	HHDT
4B. Superstructure		6	200.00	0.00	3,300.00	10.80	7.30	20.00:LD_Mix	HDT_Mix	HHDT
Interior										
Architectural Coating		11	700.00	0.00	6,500.00	10.80	7.30	20.00:LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Alternative Fuel for Construction Equipment

3.2 Demolition - 2019**Unmitigated Construction On-Site**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Fugitive Dust					0.0485	0.0000	0.0485	7.3500e-003	0.0000	7.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0702	0.6120	0.6685	1.1000e-003		0.0345	0.0345		0.0334	0.0334	0.0000	96.4798	96.4798	0.0187	0.0000	96.9482
Total	0.0702	0.6120	0.6685	1.1000e-003	0.0485	0.0345	0.0830	7.3500e-003	0.0334	0.0408	0.0000	96.4798	96.4798	0.0187	0.0000	96.9482

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3.2 Demolition - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8900e-003	0.0780	0.0218	1.8000e-004	3.4700e-003	3.0000e-004	3.7700e-003	9.5000e-004	2.8000e-004	1.2400e-003	0.0000	18.7818	18.7818	3.2900e-003	0.0000	18.8640
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8200e-003	4.7200e-003	0.0512	1.8000e-004	0.0164	1.3000e-004	0.0166	4.3700e-003	1.2000e-004	4.4900e-003	0.0000	16.1381	16.1381	3.8000e-004	0.0000	16.1478
Total	8.7100e-003	0.0827	0.0730	3.6000e-004	0.0199	4.3000e-004	0.0203	5.3200e-003	4.0000e-004	5.7300e-003	0.0000	34.9199	34.9199	3.6700e-003	0.0000	35.0117

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0485	0.0000	0.0485	7.3500e-003	0.0000	7.3500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0702	0.6120	0.6685	1.1000e-003		0.0345	0.0345		0.0334	0.0334	0.0000	96.4797	96.4797	0.0187	0.0000	96.9480
Total	0.0702	0.6120	0.6685	1.1000e-003	0.0485	0.0345	0.0830	7.3500e-003	0.0334	0.0408	0.0000	96.4797	96.4797	0.0187	0.0000	96.9480

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3.2 Demolition - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8900e-003	0.0780	0.0218	1.8000e-004	3.4700e-003	3.0000e-004	3.7700e-003	9.5000e-004	2.8000e-004	1.2400e-003	0.0000	18.7818	18.7818	3.2900e-003	0.0000	18.8640
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.8200e-003	4.7200e-003	0.0512	1.8000e-004	0.0164	1.3000e-004	0.0166	4.3700e-003	1.2000e-004	4.4900e-003	0.0000	16.1381	16.1381	3.8000e-004	0.0000	16.1478
Total	8.7100e-003	0.0827	0.0730	3.6000e-004	0.0199	4.3000e-004	0.0203	5.3200e-003	4.0000e-004	5.7300e-003	0.0000	34.9199	34.9199	3.6700e-003	0.0000	35.0117

3.3 Grading Shoring Excavation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0153	0.0000	0.0153	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3404	11.4733	11.1268	0.0206		0.6672	0.6672		0.6617	0.6617	0.0000	1,787.4504	1,787.4504	0.2088	0.0000	1,792.6699
Total	1.3404	11.4733	11.1268	0.0206	0.0153	0.6672	0.6825	2.3000e-003	0.6617	0.6640	0.0000	1,787.4504	1,787.4504	0.2088	0.0000	1,792.6699

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3.3 Grading Shoring Excavation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0150	0.6172	0.1723	1.4100e-003	0.0317	2.3400e-003	0.0341	8.5900e-003	2.2400e-003	0.0108	0.0000	148.5757	148.5757	0.0260	0.0000	149.2258
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0258	0.0178	0.1936	6.7000e-004	0.0621	4.8000e-004	0.0626	0.0165	4.4000e-004	0.0170	0.0000	60.9836	60.9836	1.4500e-003	0.0000	61.0199
Total	0.0408	0.6350	0.3659	2.0800e-003	0.0939	2.8200e-003	0.0967	0.0251	2.6800e-003	0.0278	0.0000	209.5593	209.5593	0.0275	0.0000	210.2457

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0153	0.0000	0.0153	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3404	11.4733	11.1267	0.0206		0.6672	0.6672		0.6617	0.6617	0.0000	1,787.4483	1,787.4483	0.2088	0.0000	1,792.6677
Total	1.3404	11.4733	11.1267	0.0206	0.0153	0.6672	0.6825	2.3000e-003	0.6617	0.6640	0.0000	1,787.4483	1,787.4483	0.2088	0.0000	1,792.6677

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3.3 Grading Shoring Excavation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0150	0.6172	0.1723	1.4100e-003	0.0317	2.3400e-003	0.0341	8.5900e-003	2.2400e-003	0.0108	0.0000	148.5757	148.5757	0.0260	0.0000	149.2258
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0258	0.0178	0.1936	6.7000e-004	0.0621	4.8000e-004	0.0626	0.0165	4.4000e-004	0.0170	0.0000	60.9836	60.9836	1.4500e-003	0.0000	61.0199
Total	0.0408	0.6350	0.3659	2.0800e-003	0.0939	2.8200e-003	0.0967	0.0251	2.6800e-003	0.0278	0.0000	209.5593	209.5593	0.0275	0.0000	210.2457

3.3 Grading Shoring Excavation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0153	0.0000	0.0153	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2507	2.1798	2.2847	4.2600e-003		0.1206	0.1206		0.1195	0.1195	0.0000	366.9302	366.9302	0.0410	0.0000	367.9554
Total	0.2507	2.1798	2.2847	4.2600e-003	0.0153	0.1206	0.1359	2.3000e-003	0.1195	0.1218	0.0000	366.9302	366.9302	0.0410	0.0000	367.9554

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3.3 Grading Shoring Excavation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6900e-003	0.1176	0.0348	2.8000e-004	0.0264	3.5000e-004	0.0267	6.6300e-003	3.3000e-004	6.9700e-003	0.0000	30.1504	30.1504	5.4000e-003	0.0000	30.2854
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9200e-003	3.2800e-003	0.0364	1.3000e-004	0.0128	1.0000e-004	0.0129	3.4100e-003	9.0000e-005	3.5000e-003	0.0000	12.1661	12.1661	2.7000e-004	0.0000	12.1728
Total	7.6100e-003	0.1208	0.0712	4.1000e-004	0.0392	4.5000e-004	0.0396	0.0100	4.2000e-004	0.0105	0.0000	42.3165	42.3165	5.6700e-003	0.0000	42.4582

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0153	0.0000	0.0153	2.3000e-003	0.0000	2.3000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2507	2.1797	2.2847	4.2600e-003		0.1206	0.1206		0.1195	0.1195	0.0000	366.9298	366.9298	0.0410	0.0000	367.9549
Total	0.2507	2.1797	2.2847	4.2600e-003	0.0153	0.1206	0.1359	2.3000e-003	0.1195	0.1218	0.0000	366.9298	366.9298	0.0410	0.0000	367.9549

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3.3 Grading Shoring Excavation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6900e-003	0.1176	0.0348	2.8000e-004	0.0264	3.5000e-004	0.0267	6.6300e-003	3.3000e-004	6.9700e-003	0.0000	30.1504	30.1504	5.4000e-003	0.0000	30.2854
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9200e-003	3.2800e-003	0.0364	1.3000e-004	0.0128	1.0000e-004	0.0129	3.4100e-003	9.0000e-005	3.5000e-003	0.0000	12.1661	12.1661	2.7000e-004	0.0000	12.1728
Total	7.6100e-003	0.1208	0.0712	4.1000e-004	0.0392	4.5000e-004	0.0396	0.0100	4.2000e-004	0.0105	0.0000	42.3165	42.3165	5.6700e-003	0.0000	42.4582

3.4 Building Construction Foundation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0264	0.3073	0.1709	3.4000e-004	0.0142	0.0142	0.0142	0.0130	0.0130	0.0130	0.0000	30.5524	30.5524	9.6700e-003	0.0000	30.7940
Total	0.0264	0.3073	0.1709	3.4000e-004	0.0142	0.0142	0.0142	0.0130	0.0130	0.0130	0.0000	30.5524	30.5524	9.6700e-003	0.0000	30.7940

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3.4 Building Construction Foundation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9700e-003	0.1225	0.0342	2.8000e-004	0.0344	4.6000e-004	0.0348	8.5900e-003	4.4000e-004	9.0400e-003	0.0000	29.4883	29.4883	5.1600e-003	0.0000	29.6173
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5200e-003	5.8900e-003	0.0641	2.2000e-004	0.0205	1.6000e-004	0.0207	5.4700e-003	1.5000e-004	5.6100e-003	0.0000	20.1727	20.1727	4.8000e-004	0.0000	20.1847
Total	0.0115	0.1284	0.0982	5.0000e-004	0.0549	6.2000e-004	0.0555	0.0141	5.9000e-004	0.0147	0.0000	49.6610	49.6610	5.6400e-003	0.0000	49.8020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.2000e-003	0.0464	0.0388	3.4000e-004		3.6000e-003	3.6000e-003		3.3100e-003	3.3100e-003	0.0000	4.4615	4.4615	1.4100e-003	0.0000	4.4967
Total	5.2000e-003	0.0464	0.0388	3.4000e-004		3.6000e-003	3.6000e-003		3.3100e-003	3.3100e-003	0.0000	4.4615	4.4615	1.4100e-003	0.0000	4.4967

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3.4 Building Construction Foundation - 2019

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Hauling	2.9700e-003	0.1225	0.0342	2.8000e-004	0.0344	4.6000e-004	0.0348	8.5900e-003	4.4000e-004	9.0400e-003	0.0000	29.4883	29.4883	5.1600e-003	0.0000	29.6173
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5200e-003	5.8900e-003	0.0641	2.2000e-004	0.0205	1.6000e-004	0.0207	5.4700e-003	1.5000e-004	5.6100e-003	0.0000	20.1727	20.1727	4.8000e-004	0.0000	20.1847
Total	0.0115	0.1284	0.0982	5.0000e-004	0.0549	6.2000e-004	0.0555	0.0141	5.9000e-004	0.0147	0.0000	49.6610	49.6610	5.6400e-003	0.0000	49.8020

3.4 Building Construction Foundation - 2020

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.1683	1.9535	1.1510	2.3900e-003	0.0871	0.0871	0.0871	0.0801	0.0801	0.0801	0.0000	210.3661	210.3661	0.0680	0.0000	212.0670
Total	0.1683	1.9535	1.1510	2.3900e-003	0.0871	0.0871	0.0871	0.0801	0.0801	0.0801	0.0000	210.3661	210.3661	0.0680	0.0000	212.0670

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3.4 Building Construction Foundation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0183	0.7968	0.2357	1.9200e-003	0.0425	2.3400e-003	0.0448	0.0115	2.2400e-003	0.0138	0.0000	204.3528	204.3528	0.0366	0.0000	205.2679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0556	0.0370	0.4113	1.5200e-003	0.1446	1.1100e-003	0.1457	0.0385	1.0200e-003	0.0395	0.0000	137.4320	137.4320	3.0100e-003	0.0000	137.5073
Total	0.0739	0.8338	0.6469	3.4400e-003	0.1871	3.4500e-003	0.1905	0.0500	3.2600e-003	0.0533	0.0000	341.7848	341.7848	0.0396	0.0000	342.7752

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0329	0.2968	0.2700	2.3900e-003		0.0221	0.0221		0.0203	0.0203	0.0000	30.7191	30.7191	9.9400e-003	0.0000	30.9675
Total	0.0329	0.2968	0.2700	2.3900e-003		0.0221	0.0221		0.0203	0.0203	0.0000	30.7191	30.7191	9.9400e-003	0.0000	30.9675

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3.4 Building Construction Foundation - 2020

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Hauling	0.0183	0.7968	0.2357	1.9200e-003	0.0425	2.3400e-003	0.0448	0.0115	2.2400e-003	0.0138	0.0000	204.3528	204.3528	0.0366	0.0000	205.2679
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0556	0.0370	0.4113	1.5200e-003	0.1446	1.1100e-003	0.1457	0.0385	1.0200e-003	0.0395	0.0000	137.4320	137.4320	3.0100e-003	0.0000	137.5073
Total	0.0739	0.8338	0.6469	3.4400e-003	0.1871	3.4500e-003	0.1905	0.0500	3.2600e-003	0.0533	0.0000	341.7848	341.7848	0.0396	0.0000	342.7752

3.5 4A. Building Construction Superstructure - 2020

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
Off-Road	0.1692	1.9641	1.1573	2.4100e-003	0.0875	0.0875	0.0875	0.0805	0.0805	0.0805	0.0000	211.5157	211.5157	0.0684	0.0000	213.2259
Total	0.1692	1.9641	1.1573	2.4100e-003	0.0875	0.0875	0.0875	0.0805	0.0805	0.0805	0.0000	211.5157	211.5157	0.0684	0.0000	213.2259

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3.5 4A. Building Construction Superstructure - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0184	0.8012	0.2369	1.9300e-003	0.0465	2.3500e-003	0.0488	0.0125	2.2500e-003	0.0148	0.0000	205.4695	205.4695	0.0368	0.0000	206.3895
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1678	0.1116	1.2406	4.5800e-003	0.4362	3.3600e-003	0.4395	0.1160	3.0900e-003	0.1191	0.0000	414.5490	414.5490	9.0900e-003	0.0000	414.7761
Total	0.1861	0.9128	1.4775	6.5100e-003	0.4827	5.7100e-003	0.4884	0.1286	5.3400e-003	0.1339	0.0000	620.0185	620.0185	0.0459	0.0000	621.1657

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0331	0.2984	0.2715	2.4100e-003	0.0222	0.0222	0.0222	0.0205	0.0205	0.0205	0.0000	30.8870	30.8870	9.9900e-003	0.0000	31.1367
Total	0.0331	0.2984	0.2715	2.4100e-003	0.0222	0.0222	0.0222	0.0205	0.0205	0.0205	0.0000	30.8870	30.8870	9.9900e-003	0.0000	31.1367

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3.5 4A. Building Construction Superstructure - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0184	0.8012	0.2369	1.9300e-003	0.0465	2.3500e-003	0.0488	0.0125	2.2500e-003	0.0148	0.0000	205.4695	205.4695	0.0368	0.0000	206.3895
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1678	0.1116	1.2406	4.5800e-003	0.4362	3.3600e-003	0.4395	0.1160	3.0900e-003	0.1191	0.0000	414.5490	414.5490	9.0900e-003	0.0000	414.7761
Total	0.1861	0.9128	1.4775	6.5100e-003	0.4827	5.7100e-003	0.4884	0.1286	5.3400e-003	0.1339	0.0000	620.0185	620.0185	0.0459	0.0000	621.1657

3.5 4A. Building Construction Superstructure - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0419	0.4824	0.3038	6.5000e-004		0.0209	0.0209		0.0192	0.0192	0.0000	57.4736	57.4736	0.0186	0.0000	57.9383
Total	0.0419	0.4824	0.3038	6.5000e-004		0.0209	0.0209		0.0192	0.0192	0.0000	57.4736	57.4736	0.0186	0.0000	57.9383

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3.5 4A. Building Construction Superstructure - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7400e-003	0.2018	0.0660	5.1000e-004	0.0396	5.8000e-004	0.0401	0.0100	5.5000e-004	0.0106	0.0000	54.8423	54.8423	0.0101	0.0000	55.0937
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0427	0.0273	0.3118	1.2000e-003	0.1185	9.0000e-004	0.1194	0.0315	8.2000e-004	0.0324	0.0000	108.6260	108.6260	2.2300e-003	0.0000	108.6817
Total	0.0474	0.2291	0.3778	1.7100e-003	0.1581	1.4800e-003	0.1596	0.0415	1.3700e-003	0.0429	0.0000	163.4683	163.4683	0.0123	0.0000	163.7754

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.0800e-003	0.0737	0.0730	6.5000e-004		5.2300e-003	5.2300e-003		4.8100e-003	4.8100e-003	0.0000	8.3932	8.3932	2.7100e-003	0.0000	8.4611
Total	8.0800e-003	0.0737	0.0730	6.5000e-004		5.2300e-003	5.2300e-003		4.8100e-003	4.8100e-003	0.0000	8.3932	8.3932	2.7100e-003	0.0000	8.4611

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3.5 4A. Building Construction Superstructure - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.7400e-003	0.2018	0.0660	5.1000e-004	0.0396	5.8000e-004	0.0401	0.0100	5.5000e-004	0.0106	0.0000	54.8423	54.8423	0.0101	0.0000	55.0937
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0427	0.0273	0.3118	1.2000e-003	0.1185	9.0000e-004	0.1194	0.0315	8.2000e-004	0.0324	0.0000	108.6260	108.6260	2.2300e-003	0.0000	108.6817
Total	0.0474	0.2291	0.3778	1.7100e-003	0.1581	1.4800e-003	0.1596	0.0415	1.3700e-003	0.0429	0.0000	163.4683	163.4683	0.0123	0.0000	163.7754

3.6 4B. Superstructure Interior - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1105	1.2737	0.8019	1.7300e-003	0.0551	0.0551	0.0551	0.0507	0.0507	0.0507	0.0000	151.7304	151.7304	0.0491	0.0000	152.9572
Total	0.1105	1.2737	0.8019	1.7300e-003	0.0551	0.0551	0.0551	0.0507	0.0507	0.0507	0.0000	151.7304	151.7304	0.0491	0.0000	152.9572

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3.6 4B. Superstructure Interior - 2021**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0125	0.5328	0.1743	1.3500e-003	0.0277	1.5300e-003	0.0292	7.6000e-003	1.4600e-003	9.0600e-003	0.0000	144.7836	144.7836	0.0286	0.0000	145.4475
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0376	0.0240	0.2744	1.0600e-003	0.1043	7.9000e-004	0.1051	0.0278	7.3000e-004	0.0285	0.0000	95.5909	95.5909	1.9600e-003	0.0000	95.6399
Total	0.0501	0.5568	0.4487	2.4100e-003	0.1320	2.3200e-003	0.1343	0.0354	2.1900e-003	0.0375	0.0000	240.3744	240.3744	0.0285	0.0000	241.0874

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0213	0.1946	0.1927	1.7300e-003	0.0138	0.0138	0.0138	0.0127	0.0127	0.0127	0.0000	22.1580	22.1580	7.1700e-003	0.0000	22.3372
Total	0.0213	0.1946	0.1927	1.7300e-003	0.0138	0.0138	0.0138	0.0127	0.0127	0.0127	0.0000	22.1580	22.1580	7.1700e-003	0.0000	22.3372

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3.6 4B. Superstructure Interior - 2021**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0125	0.5328	0.1743	1.3500e-003	0.0277	1.5300e-003	0.0292	7.6000e-003	1.4600e-003	9.0600e-003	0.0000	144.7836	144.7836	0.0286	0.0000	145.4475
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0376	0.0240	0.2744	1.0600e-003	0.1043	7.9000e-004	0.1051	0.0278	7.3000e-004	0.0285	0.0000	95.5909	95.5909	1.9600e-003	0.0000	95.6399
Total	0.0501	0.5568	0.4487	2.4100e-003	0.1320	2.3200e-003	0.1343	0.0354	2.1900e-003	0.0375	0.0000	240.3744	240.3744	0.0285	0.0000	241.0874

3.7 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5540					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0729	0.8206	1.3258	2.0700e-003		0.0270	0.0270		0.0262	0.0262	0.0000	180.5650	180.5650	0.0470	0.0000	181.7398
Total	4.6269	0.8206	1.3258	2.0700e-003		0.0270	0.0270		0.0262	0.0262	0.0000	180.5650	180.5650	0.0470	0.0000	181.7398

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3.7 Architectural Coating - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0165	0.7040	0.2303	1.7800e-003	0.0501	2.0200e-003	0.0521	0.0134	1.9300e-003	0.0153	0.0000	191.3323	191.3323	0.0351	0.0000	192.2097
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2620	0.1674	1.9134	7.3600e-003	0.7274	5.5000e-003	0.7329	0.1935	5.0600e-003	0.1986	0.0000	666.6016	666.6016	0.0137	0.0000	666.9432
Total	0.2785	0.8714	2.1437	9.1400e-003	0.7775	7.5200e-003	0.7850	0.2069	6.9900e-003	0.2139	0.0000	857.9340	857.9340	0.0488	0.0000	859.1529

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.5540					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0384	0.2677	0.3187	2.0700e-003		0.0165	0.0165		0.0165	0.0165	0.0000	44.7670	44.7670	3.0700e-003	0.0000	44.8438
Total	4.5924	0.2677	0.3187	2.0700e-003		0.0165	0.0165		0.0165	0.0165	0.0000	44.7670	44.7670	3.0700e-003	0.0000	44.8438

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3.7 Architectural Coating - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0165	0.7040	0.2303	1.7800e-003	0.0501	2.0200e-003	0.0521	0.0134	1.9300e-003	0.0153	0.0000	191.3323	191.3323	0.0351	0.0000	192.2097
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2620	0.1674	1.9134	7.3600e-003	0.7274	5.5000e-003	0.7329	0.1935	5.0600e-003	0.1986	0.0000	666.6016	666.6016	0.0137	0.0000	666.9432
Total	0.2785	0.8714	2.1437	9.1400e-003	0.7775	7.5200e-003	0.7850	0.2069	6.9900e-003	0.2139	0.0000	857.9340	857.9340	0.0488	0.0000	859.1529

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2337					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0339	0.3741	0.6499	1.0100e-003		0.0117	0.0117		0.0114	0.0114	0.0000	88.5661	88.5661	0.0230	0.0000	89.1404
Total	2.2676	0.3741	0.6499	1.0100e-003		0.0117	0.0117		0.0114	0.0114	0.0000	88.5661	88.5661	0.0230	0.0000	89.1404

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3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7200e-003	0.3177	0.1161	8.5000e-004	0.0455	8.7000e-004	0.0464	0.0117	8.3000e-004	0.0125	0.0000	92.1158	92.1158	0.0173	0.0000	92.5484
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1212	0.0742	0.8748	3.4800e-003	0.3568	2.6600e-003	0.3594	0.0949	2.4500e-003	0.0974	0.0000	314.8243	314.8243	6.0700e-003	0.0000	314.9759
Total	0.1290	0.3919	0.9909	4.3300e-003	0.4023	3.5300e-003	0.4058	0.1066	3.2800e-003	0.1099	0.0000	406.9401	406.9401	0.0234	0.0000	407.5243

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.2337					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0176	0.1211	0.1560	1.0100e-003		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003	0.0000	21.9580	21.9580	1.4300e-003	0.0000	21.9937
Total	2.2513	0.1211	0.1560	1.0100e-003		7.0300e-003	7.0300e-003		7.0300e-003	7.0300e-003	0.0000	21.9580	21.9580	1.4300e-003	0.0000	21.9937

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3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.7200e-003	0.3177	0.1161	8.5000e-004	0.0455	8.7000e-004	0.0464	0.0117	8.3000e-004	0.0125	0.0000	92.1158	92.1158	0.0173	0.0000	92.5484
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1212	0.0742	0.8748	3.4800e-003	0.3568	2.6600e-003	0.3594	0.0949	2.4500e-003	0.0974	0.0000	314.8243	314.8243	6.0700e-003	0.0000	314.9759
Total	0.1290	0.3919	0.9909	4.3300e-003	0.4023	3.5300e-003	0.4058	0.1066	3.2800e-003	0.1099	0.0000	406.9401	406.9401	0.0234	0.0000	407.5243

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Apartment's High Rise	0.00	0.00	0.00				
Enclosed Parking with Elevator	0.00	0.00	0.00				
Strip Mall	0.00	0.00	0.00				
Total	0.00	0.00	0.00				

4.3 Trip Type Information

Land Use	Miles				Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by	
Apartment's High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3	
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0	
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15	

4.4 Fleet Mix

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Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.605720	0.039347	0.191789	0.088945	0.014469	0.004989	0.029396	0.009044	0.004299	0.004006	0.006568	0.000937	0.000492
Apartments High Rise	0.605720	0.039347	0.191789	0.088945	0.014469	0.004989	0.029396	0.009044	0.004299	0.004006	0.006568	0.000937	0.000492
Strip Mall	0.605720	0.039347	0.191789	0.088945	0.014469	0.004989	0.029396	0.009044	0.004299	0.004006	0.006568	0.000937	0.000492

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																
MT/yr																
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	334.4280	334.4280	0.0151	3.1300e-003	335.7384
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	334.4280	334.4280	0.0151	3.1300e-003	335.7384
NaturalGas Mitigated	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.1747	608.1747	0.0117	0.0112	611.7888
NaturalGas Unmitigated	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.1747	608.1747	0.0117	0.0112	611.7888

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

Land Use	NaturalGas Use kBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	1.12565e+007	0.0607	0.5187	0.2207	3.3100e-003		0.0419	0.0419		0.0419	0.0419	0.0000	600.6922	600.6922	0.0115	0.0110	604.2618
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	140217	7.6000e-004	6.8700e-003	5.7700e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4825	7.4825	1.4000e-004	1.4000e-004	7.5270
Total		0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.1747	608.1747	0.0117	0.0112	611.7888

Mitigated

Land Use	NaturalGas Use kBTU/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	1.12565e+007	0.0607	0.5187	0.2207	3.3100e-003		0.0419	0.0419		0.0419	0.0419	0.0000	600.6922	600.6922	0.0115	0.0110	604.2618
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	140217	7.6000e-004	6.8700e-003	5.7700e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4825	7.4825	1.4000e-004	1.4000e-004	7.5270
Total		0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.1747	608.1747	0.0117	0.0112	611.7888

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	729577	212.2423	9.6000e-003	1.9900e-003	213.0739
Enclosed Parking with Elevator	268260	78.0399	3.5300e-003	7.3000e-004	78.3457
Strip Mall	151750	44.1458	2.0000e-003	4.1000e-004	44.3188
Total		334.4280	0.0151	3.1300e-003	335.7384

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	729577	212.2423	9.6000e-003	1.9900e-003	213.0739
Enclosed Parking with Elevator	268260	78.0399	3.5300e-003	7.3000e-004	78.3457
Strip Mall	151750	44.1458	2.0000e-003	4.1000e-004	44.3188
Total		334.4280	0.0151	3.1300e-003	335.7384

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.0128	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330
Unmitigated	4.0128	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.7914					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.2214	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330
Total	4.0128	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Consumer Products	3.7914					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Landscaping	0.2214	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330
Total	4.0128	0.0844	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	518.00	Space	0.00	102,000.00	0
Apartments High Rise	984.00	Dwelling Unit	1.10	938,745.00	1978
Strip Mall	30.35	1000sqft	0.00	30,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	4.6	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2022

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MMWhr)	641.35	CH4 Intensity (lb/MMWhr)	0.029	N2O Intensity (lb/MMWhr)	0.006
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1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Total lot acreage included in residential land use type. Rooftop mechanical equipment included in residential square footage.

Construction Phase - Operations run only. No construction emissions estimate.

Off-road Equipment - Operations run only. No construction emissions estimate.

Off-road Equipment - Operations run only. No construction emissions estimate.

Grading - Operations run only. No construction emissions estimate.

Trips and VMT - Operations run only. No construction emissions estimate.

Architectural Coating - Operations run only. No construction emissions estimate.

Vehicle Trips - Project specific trip rates per TIS 02/17

Woodstoves - No woodstoves or fireplaces assumed to be installed within dwelling units. Firepits and barbeque grills included.

Consumer Products - Emission factor recommended by Environmental Planning.

Water And Wastewater - Project specific water demand from WSA (01/17). Outdoor water use for retail included in outdoor water use for residential.

Stationary Sources - Emergency Generators and Fire Pumps - Backup diesel generator assumed to run 48 hours for testing/maintenance.

Energy Mitigation - 2016 Title 24 28% Percent Reduction over 2013 Title 24 (CEC 2015). Project will contract with SFPUC for 100% GHG Free Energy.

Water Mitigation - Project includes wastewater treatment system, rainwater, stormwater collection features to meet toilet (11%) & irrigation (1%) demands. Per WSA Non-Potable Calculator (01/23/17)

Table Name	Column Name	Default Value	New Value
tb\ArchitecturalCoating	ConstArea_Nonresidential_Exterior	15,175.00	0.00
tb\ArchitecturalCoating	ConstArea_Nonresidential_Interior	45,525.00	0.00
tb\ArchitecturalCoating	ConstArea_Parking	6,120.00	0.00
tb\ArchitecturalCoating	ConstArea_Residential_Exterior	633,653.00	0.00
tb\ArchitecturalCoating	ConstArea_Residential_Interior	1,900,959.00	0.00
tb\ConstructionPhase	NumDays	10.00	0.00
tb\ConstructionPhase	NumDays	2.00	0.00
tb\ConsumerProducts	ROG_EF	2.14E-05	1.51E-05
tb\Fireplaces	NumberGas	147.60	5.00
tb\Fireplaces	NumberWood	167.28	0.00

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tbLandUse	BuildingSpaceSquareFeet	207,200.00	102,000.00
tbLandUse	BuildingSpaceSquareFeet	984,000.00	938,745.00
tbLandUse	LandUseSquareFeet	207,200.00	102,000.00
tbLandUse	LandUseSquareFeet	984,000.00	938,745.00
tbLandUse	LotAcreage	4.66	0.00
tbLandUse	LotAcreage	15.87	1.10
tbLandUse	LotAcreage	0.70	0.00
tbLandUse	Population	2,814.00	1,978.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbProjectCharacteristics	OperationalYear	2018	2022
tbStationaryGeneratorsPumpSEF	CH4_EF	0.07	0.07
tbStationaryGeneratorsPumpSEF	ROG_EF	2.2480e-003	2.2477e-003
tbStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,011.00
tbStationaryGeneratorsPumpsUse	HoursPerYear	0.00	48.00
tbStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tbTripsAndVMT	WorkerTripNumber	152.00	0.00
tbVehicleTrips	ST_TR	4.98	2.22
tbVehicleTrips	ST_TR	42.04	23.69
tbVehicleTrips	SU_TR	3.65	2.22
tbVehicleTrips	SU_TR	20.43	23.69
tbVehicleTrips	WD_TR	4.20	2.22
tbVehicleTrips	WD_TR	44.32	23.69
tbWater	IndoorWaterUseRate	64,111,561.21	41,486,265.00
tbWater	IndoorWaterUseRate	2,248,101.03	833,295.00

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tbWater	OutdoorWaterUseRate	40,418,158.16	232,505.00
tbWater	OutdoorWaterUseRate	1,377,868.37	0.00
tbWoodstoves	NumberCatalytic	19.68	0.00
tbWoodstoves	NumberNoncatalytic	19.68	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational**Unmitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	3.5774	0.0849	7.3195	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	12.5687	12.5687	0.0116	1.0000e-005	12.8609
Energy	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	2,197.009 ⁹	2,197.009 ⁹	0.0835	0.0260	2,206.849 ⁵
Mobile	0.6918	2.7200	7.4580	0.0265	2.3010	0.0297	2.3307	0.6199	0.0278	0.6477	0.0000	2,431.543 ²	2,431.543 ²	0.1043	0.0000	2,434.151 ⁵
Stationary	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Waste						0.0000	0.0000		0.0000	0.0000	98.3512	0.0000	98.3512	5.8124	0.0000	243.6608
Water						0.0000	0.0000		0.0000	0.0000	13.4260	66.8529	80.2789	1.3820	0.0332	124.7186
Total	4.4099	3.6847	15.2059	0.0306	2.3010	0.1243	2.4253	0.6199	0.1224	0.7423	111.7772	4,744.732³	4,856.509⁵	7.3989	0.0592	5,059.127⁷

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2.2 Overall Operational**Mitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr											MT/yr					
Area	3.5774	0.0849	7.3195	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	12.5687	12.5687	0.0116	1.0000e-005	12.8609
Energy	0.0482	0.4119	0.1775	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.6511	476.6511	9.1400e-003	8.7400e-003	479.4836
Mobile	0.6918	2.7200	7.4580	0.0265	2.3010	0.0297	2.3307	0.6199	0.0278	0.6477	0.0000	2,431.543 ²	2,431.543 ²	0.1043	0.0000	2,434.151 ⁵
Stationary	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Waste						0.0000	0.0000		0.0000	0.0000	98.3512	0.0000	98.3512	5.8124	0.0000	243.6608
Water						0.0000	0.0000		0.0000	0.0000	12.8353	63.9208	76.7561	1.3212	0.0317	119.2405
Total	4.3966	3.5710	15.1569	0.0299	2.3010	0.1151	2.4161	0.6199	0.1132	0.7331	111.1865	3,021.441 ⁴	3,132.627 ⁹	7.2638	0.0405	3,326.283 ⁷

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.30	3.08	0.32	2.36	0.00	7.39	0.38	0.00	7.50	1.24	0.53	36.32	35.50	1.83	31.63	34.25

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/1/2019	5/31/2019	5	0	
2	Site Preparation	Site Preparation	6/1/2019	5/31/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.3 Site Preparation - 2019**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO _{2e}
Category	tons/yr										MT/yr					
Mitigated	0.6918	2.7200	7.4580	0.0265	2.3010	0.0297	2.3307	0.6199	0.0278	0.6477	0.0000	2,431,543 ²	2,431,543 ²	0.1043	0.0000	2,434,151 ⁵
Unmitigated	0.6918	2.7200	7.4580	0.0265	2.3010	0.0297	2.3307	0.6199	0.0278	0.6477	0.0000	2,431,543 ²	2,431,543 ²	0.1043	0.0000	2,434,151 ⁵

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated Annual VMT	Mitigated Annual VMT
	Weekday	Saturday	Sunday		
Apartments High Rise	2,184.48	2,184.48	2184.48	5,045,291	5,045,291
Enclosed Parking with Elevator	0.00	0.00	0.00		
Strip Mall	718.99	718.99	718.99	1,107,271	1,107,271
Total	2,903.47	2,903.47	2,903.47	6,152,562	6,152,562

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.605720	0.039347	0.191789	0.088945	0.014469	0.004989	0.029396	0.009044	0.004299	0.004006	0.006568	0.000937	0.000492
Apartments High Rise	0.605720	0.039347	0.191789	0.088945	0.014469	0.004989	0.029396	0.009044	0.004299	0.004006	0.006568	0.000937	0.000492
Strip Mall	0.605720	0.039347	0.191789	0.088945	0.014469	0.004989	0.029396	0.009044	0.004299	0.004006	0.006568	0.000937	0.000492

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,588,835 ²	1,588,835 ²	0.0718	0.0149	1,595,060 ⁷
NaturalGas Mitigated	0.0482	0.4119	0.1775	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476,6511	476,6511	9.1400e-003	8.7400e-003	479,4836
NaturalGas Unmitigated	0.0615	0.3256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608,1747	608,1747	0.0117	0.0112	611,7888

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5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	1.12565e+007	0.0607	0.5187	0.2207	3.3100e-003		0.0419	0.0419		0.0419	0.0419	0.0000	600.6922	600.6922	0.0115	0.0110	604.2618
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	140217	7.6000e-004	6.8700e-003	5.7700e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4825	7.4825	1.4000e-004	1.4000e-004	7.5270
Total		0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.1747	608.1747	0.0117	0.0112	611.7888

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	8.8252e+006	0.0476	0.4067	0.1730	2.6000e-003		0.0329	0.0329		0.0329	0.0329	0.0000	470.9462	470.9462	9.0300e-003	8.6300e-003	473.7448
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	106905	5.8000e-004	5.2400e-003	4.4000e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.7049	5.7049	1.1000e-004	1.0000e-004	5.7388
Total		0.0482	0.4119	0.1774	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.6511	476.6511	9.1400e-003	8.7300e-003	479.4835

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	4.44905e+006	1,294,279	0.0585	0.0121	1,299,350 ⁴
Enclosed Parking with Elevator	687480	199,9958	9.0400e-003	1.8700e-003	200,7795
Strip Mall	325049	94,5603	4.2800e-003	8.8000e-004	94,9309
Total		1,588,835²	0.0718	0.0149	1,595,060⁷

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.5774	0.0849	7.3195	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	12.5687	12.5687	0.0116	1.0000e-005	12.8609
Unmitigated	3.5774	0.0849	7.3195	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	12.5687	12.5687	0.0116	1.0000e-005	12.8609

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6788					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6772					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.4000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6242	0.6242	1.0000e-005	1.0000e-005	0.6279
Landscaping	0.2214	0.0644	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330
Total	3.5774	0.0849	7.3195	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	12.5687	12.5687	0.0116	1.0000e-005	12.8610

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6788					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6772					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.4000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6242	0.6242	1.0000e-005	1.0000e-005	0.6279
Landscaping	0.2214	0.0644	7.3192	3.9000e-004		0.0404	0.0404		0.0404	0.0404	0.0000	11.9445	11.9445	0.0115	0.0000	12.2330
Total	3.5774	0.0849	7.3195	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	12.5687	12.5687	0.0116	1.0000e-005	12.8610

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	76,7561	1,3212	0.0317	119,2405
Unmitigated	80,2789	1,3820	0.0332	124,7186

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	41,4863 / 0.232505	78,7029	1,3548	0.0325	122,2675
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.833295 / 0	1,5761	0.0272	6.5000e-004	2,4511
Total		80,2789	1,3820	0.0332	124,7186

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	39.6609 / 0.231575	75.2494	1.2952	0.0311	116.8972
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.79663 / 0	1.5067	0.0260	6.2000e-004	2.3433
Total		76.7561	1.3212	0.0317	119.2405

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	98.3512	5.8124	0.0000	243.6608
Unmitigated	98.3512	5.8124	0.0000	243.6608

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	452.64	91.8818	5.4301	0.0000	227.6333
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.87	6.4693	0.3823	0.0000	16.0275
Total		98.3512	5.8124	0.0000	243.6608

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	452.64	91.8818	5.4301	0.0000	227.6333
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.87	6.4693	0.3823	0.0000	16.0275
Total		98.3512	5.8124	0.0000	243.6608

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0	48	2011	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

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Equipment Type	Number
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10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Total	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864

11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	518.00	Space	0.00	102,000.00	0
Apartments High Rise	984.00	Dwelling Unit	1.10	938,745.00	1978
Strip Mall	30.35	1000sqft	0.00	30,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	4.6	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2032

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MMWhr)	641.35	CH4 Intensity (lb/MMWhr)	0.029	N2O Intensity (lb/MMWhr)	0.006
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1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Total lot acreage included in residential land use type. Rooftop mechanical equipment included in residential square footage.

Construction Phase - Operations run only. No construction emissions estimate.

Off-road Equipment - Operations run only. No construction emissions estimate.

Off-road Equipment - Operations run only. No construction emissions estimate.

Grading - Operations run only. No construction emissions estimate.

Trips and VMT - Operations run only. No construction emissions estimate.

Architectural Coating - Operations run only. No construction emissions estimate.

Vehicle Trips - Project specific trip rates per TIS 02/17

Woodstoves - No woodstoves or fireplaces assumed to be installed within dwelling units. Firepits and barbeque grills included.

Consumer Products - Emission factor recommended by Environmental Planning.

Water And Wastewater - Project specific water demand from WSA (01/17). Outdoor water use for retail included in outdoor water use for residential.

Stationary Sources - Emergency Generators and Fire Pumps - Backup diesel generator assumed to run 48 hours for testing/maintenance.

Energy Mitigation - 2016 Title 24 28% Percent Reduction over 2013 Title 24 (CEC 2015). Project will contract with SFPUC for 100% GHG Free Energy.

Water Mitigation - Project includes wastewater treatment system, rainwater, stormwater collection features to meet toilet (11%) & irrigation (1%) demands. Per WSA Non-Potable Calculator (01/23/17)

Table Name	Column Name	Default Value	New Value
tb\ArchitecturalCoating	ConstArea_Nonresidential_Exterior	15,175.00	0.00
tb\ArchitecturalCoating	ConstArea_Nonresidential_Interior	45,525.00	0.00
tb\ArchitecturalCoating	ConstArea_Parking	6,120.00	0.00
tb\ArchitecturalCoating	ConstArea_Residential_Exterior	633,653.00	0.00
tb\ArchitecturalCoating	ConstArea_Residential_Interior	1,900,959.00	0.00
tb\ConstructionPhase	NumDays	10.00	0.00
tb\ConstructionPhase	NumDays	2.00	0.00
tb\ConsumerProducts	ROG_EF	2.14E-05	1.51E-05
tb\Fireplaces	NumberGas	147.60	5.00
tb\Fireplaces	NumberWood	167.28	0.00

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tbLandUse	BuildingSpaceSquareFeet	207,200.00	102,000.00
tbLandUse	BuildingSpaceSquareFeet	984,000.00	938,745.00
tbLandUse	LandUseSquareFeet	207,200.00	102,000.00
tbLandUse	LandUseSquareFeet	984,000.00	938,745.00
tbLandUse	LotAcreage	4.66	0.00
tbLandUse	LotAcreage	15.87	1.10
tbLandUse	LotAcreage	0.70	0.00
tbLandUse	Population	2,814.00	1,978.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbProjectCharacteristics	OperationalYear	2018	2032
tbStationaryGeneratorsPumpSEF	CH4_EF	0.07	0.07
tbStationaryGeneratorsPumpSEF	ROG_EF	2.2480e-003	2.2477e-003
tbStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,011.00
tbStationaryGeneratorsPumpsUse	HoursPerYear	0.00	48.00
tbStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tbTripsAndVMT	WorkerTripNumber	152.00	0.00
tbVehicleTrips	ST_TR	4.98	2.22
tbVehicleTrips	ST_TR	42.04	23.69
tbVehicleTrips	SU_TR	3.65	2.22
tbVehicleTrips	SU_TR	20.43	23.69
tbVehicleTrips	WD_TR	4.20	2.22
tbVehicleTrips	WD_TR	44.32	23.69
tbWater	IndoorWaterUseRate	64,111,561.21	41,486,265.00
tbWater	IndoorWaterUseRate	2,248,101.03	833,295.00

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tbWater	OutdoorWaterUseRate	40,418,158.16	232,505.00
tbWater	OutdoorWaterUseRate	1,377,868.37	0.00
tbWoodstoves	NumberCatalytic	19.68	0.00
tbWoodstoves	NumberNoncatalytic	19.68	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational**Unmitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	3.5744	0.0846	7.2923	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8573
Energy	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	2,197.009 ⁹	2,197.009 ⁹	0.0835	0.0260	2,206.849 ⁵
Mobile	0.4135	1.8668	4.5614	0.0206	2.2957	0.0152	2.3109	0.6176	0.0142	0.6317	0.0000	1,910.216 ⁶	1,910.216 ⁶	0.0743	0.0000	1,912.073 ¹
Stationary	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Waste						0.0000	0.0000		0.0000	0.0000	98.3512	0.0000	98.3512	5.8124	0.0000	243.6608
Water						0.0000	0.0000		0.0000	0.0000	13.4260	66.8529	80.2789	1.3820	0.0332	124.7186
Total	4.1286	2.8311	12.2821	0.0247	2.2957	0.1099	2.4056	0.6176	0.1089	0.7264	111.7772	4,223.405⁷	4,335.182⁹	7.3687	0.0592	4,537.045⁷

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2.2 Overall Operational

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr											MT/yr					
Area	3.5744	0.0846	7.2923	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8573
Energy	0.0482	0.4119	0.1775	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.6511	476.6511	9.1400e-003	8.7400e-003	479.4836
Mobile	0.4135	1.8668	4.5614	0.0206	2.2957	0.0152	2.3109	0.6176	0.0142	0.6317	0.0000	1,910.216 ⁶	1,910.216 ⁶	0.0743	0.0000	1,912.073 ¹
Stationary	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8664
Waste						0.0000	0.0000		0.0000	0.0000	98.3512	0.0000	98.3512	5.8124	0.0000	243.6608
Water						0.0000	0.0000		0.0000	0.0000	12.8353	63.9208	76.7561	1.3212	0.0317	119.2405
Total	4.1153	2.7174	12.2331	0.0240	2.2957	0.1007	2.3964	0.6176	0.0997	0.7172	111.1865	2,500.114 ⁸	2,611.301 ³	7.2336	0.0405	2,804.201 ⁷
Percent Reduction	0.32	4.02	0.40	2.91	0.00	8.35	0.38	0.00	8.43	1.26	0.53	40.80	39.76	1.83	31.63	38.19

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/1/2019	5/31/2019	5	0	
2	Site Preparation	Site Preparation	6/1/2019	5/31/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.3 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO _{2e}
Category	tons/yr										MT/yr					
Mitigated	0.4135	1.8668	4.5614	0.0206	2.2957	0.0152	2.3109	0.6176	0.0142	0.6317	0.0000	1,910.216 ⁶	1,910.216 ⁶	0.0743	0.0000	1,912.073 ¹
Unmitigated	0.4135	1.8668	4.5614	0.0206	2.2957	0.0152	2.3109	0.6176	0.0142	0.6317	0.0000	1,910.216 ⁶	1,910.216 ⁶	0.0743	0.0000	1,912.073 ¹

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT	Annual VMT	Annual VMT
Apartments High Rise	2,184.48	2,184.48	2184.48	5,045,291		5,045,291	
Enclosed Parking with Elevator	0.00	0.00	0.00				
Strip Mall	718.99	718.99	718.99	1,107,271		1,107,271	
Total	2,903.47	2,903.47	2,903.47	6,152,562		6,152,562	

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.601538	0.036054	0.193096	0.092568	0.012113	0.005314	0.035718	0.009816	0.004313	0.002228	0.005671	0.000957	0.000615
Apartments High Rise	0.601538	0.036054	0.193096	0.092568	0.012113	0.005314	0.035718	0.009816	0.004313	0.002228	0.005671	0.000957	0.000615
Strip Mall	0.601538	0.036054	0.193096	0.092568	0.012113	0.005314	0.035718	0.009816	0.004313	0.002228	0.005671	0.000957	0.000615

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,588,835 ²	1,588,835 ²	0.0718	0.0149	1,595,060 ⁷
NaturalGas Mitigated	0.0482	0.4119	0.1775	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476,6511	476,6511	9.1400e-003	8.7400e-003	479,4836
NaturalGas Unmitigated	0.0615	0.3256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608,1747	608,1747	0.0117	0.0112	611,7888

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	1.12565e+007	0.0607	0.5187	0.2207	3.3100e-003		0.0419	0.0419		0.0419	0.0419	0.0000	600.6922	600.6922	0.0115	0.0110	604.2618
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	140217	7.6000e-004	6.8700e-003	5.7700e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4825	7.4825	1.4000e-004	1.4000e-004	7.5270
Total		0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.1747	608.1747	0.0117	0.0112	611.7688

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	8.8252e+006	0.0476	0.4067	0.1730	2.6000e-003		0.0329	0.0329		0.0329	0.0329	0.0000	470.9462	470.9462	9.0300e-003	8.6300e-003	473.7448
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	106905	5.8000e-004	5.2400e-003	4.4000e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.7049	5.7049	1.1000e-004	1.0000e-004	5.7388
Total		0.0482	0.4119	0.1774	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.6511	476.6511	9.1400e-003	8.7300e-003	479.4835

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	4.44905e+006	1,294,279	0.0585	0.0121	1,299,350 ⁴
Enclosed Parking with Elevator	687480	199,9958	9.0400e-003	1.8700e-003	200,7795
Strip Mall	325049	94,5603	4.2800e-003	8.8000e-004	94,9309
Total		1,588,835²	0.0718	0.0149	1,595,060⁷

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.5744	0.0846	7.2923	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8573
Unmitigated	3.5744	0.0846	7.2923	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8573

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6788					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6772					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.4000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6242	0.6242	1.0000e-005	1.0000e-005	0.6279
Landscaping	0.2184	0.0841	7.2920	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	11.9445	11.9445	0.0114	0.0000	12.2294
Total	3.5744	0.0846	7.2923	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8573

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6788					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6772					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.4000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6242	0.6242	1.0000e-005	1.0000e-005	0.6279
Landscaping	0.2184	0.0841	7.2920	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	11.9445	11.9445	0.0114	0.0000	12.2294
Total	3.5744	0.0846	7.2923	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8573

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	76,7561	1,3212	0.0317	119,2405
Unmitigated	80,2789	1,3820	0.0332	124,7186

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	41,4863 / 0.232505	78,7029	1,3548	0.0325	122,2675
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.833295 / 0	1,5761	0.0272	6.5000e-004	2,4511
Total		80,2789	1,3820	0.0332	124,7186

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	39.6609 / 0.231575	75.2494	1.2952	0.0311	116.8972
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.79663 / 0	1.5067	0.0260	6.2000e-004	2.3433
Total		76.7561	1.3212	0.0317	119.2405

8.0 Waste Detail

8.1 Mitigation Measures Waste

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	98.3512	5.8124	0.0000	243.6608
Unmitigated	98.3512	5.8124	0.0000	243.6608

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	452.64	91.8818	5.4301	0.0000	227.6333
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.87	6.4693	0.3823	0.0000	16.0275
Total		98.3512	5.8124	0.0000	243.6608

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	452.64	91.8818	5.4301	0.0000	227.6333
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.87	6.4693	0.3823	0.0000	16.0275
Total		98.3512	5.8124	0.0000	243.6608

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	:	:	1:0:	48:	201:	0.73; Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

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Equipment Type	Number
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10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Total	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864

11.0 Vegetation

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking with Elevator	518.00	Space	0.00	102,000.00	0
Apartments High Rise	984.00	Dwelling Unit	1.10	938,745.00	1978
Strip Mall	30.35	1000sqft	0.00	30,350.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	4.6	Precipitation Freq (Days)	64
Climate Zone	5			Operational Year	2040

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MMWhr)	641.35	CH4 Intensity (lb/MMWhr)	0.029	N2O Intensity (lb/MMWhr)	0.006
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1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use - Total lot acreage included in residential land use type. Rooftop mechanical equipment included in residential square footage.

Construction Phase - Operations run only. No construction emissions estimate.

Off-road Equipment - Operations run only. No construction emissions estimate.

Off-road Equipment - Operations run only. No construction emissions estimate.

Grading - Operations run only. No construction emissions estimate.

Trips and VMT - Operations run only. No construction emissions estimate.

Architectural Coating - Operations run only. No construction emissions estimate.

Vehicle Trips - Project specific trip rates per TIS 02/17

Woodstoves - No woodstoves or fireplaces assumed to be installed within dwelling units. Firepits and barbeque grills included.

Consumer Products - Emission factor recommended by Environmental Planning.

Water And Wastewater - Project specific water demand from WSA (01/17). Outdoor water use for retail included in outdoor water use for residential.

Stationary Sources - Emergency Generators and Fire Pumps - Backup diesel generator assumed to run 48 hours for testing/maintenance.

Energy Mitigation - 2016 Title 24 28% Percent Reduction over 2013 Title 24 (CEC 2015). Project will contract with SFPUC for 100% GHG Free Energy.

Water Mitigation - Project includes wastewater treatment system, rainwater, stormwater collection features to meet toilet (11%) & irrigation (1%) demands. Per WSA Non-Potable Calculator (01/23/17)

Table Name	Column Name	Default Value	New Value
tb\ArchitecturalCoating	ConstArea_Nonresidential_Exterior	15,175.00	0.00
tb\ArchitecturalCoating	ConstArea_Nonresidential_Interior	45,525.00	0.00
tb\ArchitecturalCoating	ConstArea_Parking	6,120.00	0.00
tb\ArchitecturalCoating	ConstArea_Residential_Exterior	633,653.00	0.00
tb\ArchitecturalCoating	ConstArea_Residential_Interior	1,900,959.00	0.00
tb\ConstructionPhase	NumDays	10.00	0.00
tb\ConstructionPhase	NumDays	2.00	0.00
tb\ConsumerProducts	ROG_EF	2.14E-05	1.51E-05
tb\Fireplaces	NumberGas	147.60	5.00
tb\Fireplaces	NumberWood	167.28	0.00

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tbLandUse	BuildingSpaceSquareFeet	207,200.00	102,000.00
tbLandUse	BuildingSpaceSquareFeet	984,000.00	938,745.00
tbLandUse	LandUseSquareFeet	207,200.00	102,000.00
tbLandUse	LandUseSquareFeet	984,000.00	938,745.00
tbLandUse	LotAcreage	4.66	0.00
tbLandUse	LotAcreage	15.87	1.10
tbLandUse	LotAcreage	0.70	0.00
tbLandUse	Population	2,814.00	1,978.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tbProjectCharacteristics	OperationalYear	2018	2040
tbStationaryGeneratorsPumpSEF	CH4_EF	0.07	0.07
tbStationaryGeneratorsPumpSEF	ROG_EF	2.2480e-003	2.2477e-003
tbStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	2,011.00
tbStationaryGeneratorsPumpsUse	HoursPerYear	0.00	48.00
tbStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tbTripsAndVMT	WorkerTripNumber	152.00	0.00
tbVehicleTrips	ST_TR	4.98	2.22
tbVehicleTrips	ST_TR	42.04	23.69
tbVehicleTrips	SU_TR	3.65	2.22
tbVehicleTrips	SU_TR	20.43	23.69
tbVehicleTrips	WD_TR	4.20	2.22
tbVehicleTrips	WD_TR	44.32	23.69
tbWater	IndoorWaterUseRate	64,111,561.21	41,486,265.00
tbWater	IndoorWaterUseRate	2,248,101.03	833,295.00

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tbWater	OutdoorWaterUseRate	40,418,158.16	232,505.00
tbWater	OutdoorWaterUseRate	1,377,868.37	0.00
tbWoodstoves	NumberCatalytic	19.68	0.00
tbWoodstoves	NumberNoncatalytic	19.68	0.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational**Unmitigated Operational**

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Area	3.5740	0.0846	7.2795	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8571
Energy	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	2.197.009 ⁹	2.197.009 ⁹	0.0835	0.0260	2,206.849 ⁵
Mobile	0.3291	1.7417	3.7909	0.0195	2.2953	9.3500e-003	2.3047	0.6174	8.7000e-003	0.6261	0.0000	1,819.712 ⁷	1,819.712 ⁷	0.0704	0.0000	1,821.471 ⁵
Stationary	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Waste						0.0000	0.0000		0.0000	0.0000	98.3512	0.0000	98.3512	5.8124	0.0000	243.6608
Water						0.0000	0.0000		0.0000	0.0000	13.4260	66.8529	80.2789	1.3820	0.0332	124.7186
Total	4.0437	2.7060	11.4988	0.0237	2.2953	0.1040	2.3994	0.6174	0.1034	0.7208	111.7772	4,132.901⁸	4,244.679⁰	7.3648	0.0592	4,446.443⁹

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2.2 Overall Operational

Mitigated Operational

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr											MT/yr					
Area	3.5740	0.0846	7.2795	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8571
Energy	0.0482	0.4119	0.1775	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.6511	476.6511	9.1400e-003	8.7400e-003	479.4836
Mobile	0.3291	1.7417	3.7909	0.0195	2.2953	9.3500e-003	2.3047	0.6174	8.7000e-003	0.6261	0.0000	1,819.7127	1,819.7127	0.0704	0.0000	1,821.4715
Stationary	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Waste						0.0000	0.0000		0.0000	0.0000	98.3512	0.0000	98.3512	5.8124	0.0000	243.6608
Water						0.0000	0.0000		0.0000	0.0000	12.8353	63.9208	76.7561	1.3212	0.0317	119.2405
Total	4.0305	2.5924	11.4498	0.0229	2.2953	0.0949	2.3902	0.6174	0.0942	0.7116	111.1865	2,409.6109	2,520.7974	7.2296	0.0405	2,713.5998
Percent Reduction	0.33	4.20	0.43	3.04	0.00	8.82	0.38	0.00	8.88	1.27	0.53	41.70	40.61	1.84	31.63	38.97

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	6/1/2019	5/31/2019	5	0	
2	Site Preparation	Site Preparation	6/1/2019	5/31/2019	5	0	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48
Site Preparation	Graders	0	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	0	7.00	247	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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3.3 Site Preparation - 2019**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO ₂	Fugitive PM ₁₀	Exhaust PM ₁₀	PM ₁₀ Total	Fugitive PM _{2.5}	Exhaust PM _{2.5}	PM _{2.5} Total	Bio- CO ₂	NBio- CO ₂	Total CO ₂	CH ₄	N ₂ O	CO _{2e}
	tons/yr										MT/yr					
Mitigated	0.3291	1.7417	3.7909	0.0195	2.2953	9.3500e-003	2.3047	0.6174	8.7000e-003	0.6261	0.0000	1.819,712.7	1,819,712.7	0.0704	0.0000	1,821,471.5
Unmitigated	0.3291	1.7417	3.7909	0.0195	2.2953	9.3500e-003	2.3047	0.6174	8.7000e-003	0.6261	0.0000	1,819,712.7	1,819,712.7	0.0704	0.0000	1,821,471.5

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated		Mitigated	
	Weekday	Saturday	Sunday	Annual VMT		Annual VMT	
Apartment's High Rise	2,184.48	2,184.48	2184.48	5,045,291		5,045,291	
Enclosed Parking with Elevator	0.00	0.00	0.00				
Strip Mall	718.99	718.99	718.99	1,107,271		1,107,271	
Total	2,903.47	2,903.47	2,903.47	6,152,562		6,152,562	

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartment's High Rise	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15

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4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCV	SBUS	MH
Enclosed Parking with Elevator	0.598130	0.035642	0.192395	0.093881	0.011711	0.005394	0.038948	0.010487	0.004523	0.001760	0.005537	0.000928	0.000663
Apartments High Rise	0.598130	0.035642	0.192395	0.093881	0.011711	0.005394	0.038948	0.010487	0.004523	0.001760	0.005537	0.000928	0.000663
Strip Mall	0.598130	0.035642	0.192395	0.093881	0.011711	0.005394	0.038948	0.010487	0.004523	0.001760	0.005537	0.000928	0.000663

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Percent of Electricity Use Generated with Renewable Energy

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,588,835 ²	1,588,835 ²	0.0718	0.0149	1,595,060 ⁷
Natural Gas Mitigated	0.0482	0.4119	0.1775	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476,6511	476,6511	9.1400e-003	8.7400e-003	479,4836
Natural Gas Unmitigated	0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608,1747	608,1747	0.0117	0.0112	611,7888

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5.2 Energy by Land Use - NaturalGas**Unmitigated**

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	1.12565e+007	0.0607	0.5187	0.2207	3.3100e-003		0.0419	0.0419		0.0419	0.0419	0.0000	600.6922	600.6922	0.0115	0.0110	604.2618
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	140217	7.6000e-004	6.8700e-003	5.7700e-003	4.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	7.4825	7.4825	1.4000e-004	1.4000e-004	7.5270
Total		0.0615	0.5256	0.2265	3.3500e-003		0.0425	0.0425		0.0425	0.0425	0.0000	608.1747	608.1747	0.0117	0.0112	611.7688

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
tons/yr																	
Apartments High Rise	8.8252e+006	0.0476	0.4067	0.1730	2.6000e-003		0.0329	0.0329		0.0329	0.0329	0.0000	470.9462	470.9462	9.0300e-003	8.6300e-003	473.7448
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Strip Mall	106905	5.8000e-004	5.2400e-003	4.4000e-003	3.0000e-005		4.0000e-004	4.0000e-004		4.0000e-004	4.0000e-004	0.0000	5.7049	5.7049	1.1000e-004	1.0000e-004	5.7388
Total		0.0482	0.4119	0.1774	2.6300e-003		0.0333	0.0333		0.0333	0.0333	0.0000	476.6511	476.6511	9.1400e-003	8.7300e-003	479.4835

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5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	4.44905e+006	1,294,279	0.0585	0.0121	1,299,350 ⁴
Enclosed Parking with Elevator	687480	199,9958	9.0400e-003	1.8700e-003	200,7795
Strip Mall	325049	94,5603	4.2800e-003	8.8000e-004	94,9309
Total		1,588,835²	0.0718	0.0149	1,595,060⁷

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments High Rise	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.5740	0.0846	7.2795	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8571
Unmitigated	3.5740	0.0846	7.2795	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8571

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6788					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6772					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.4000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6242	0.6242	1.0000e-005	1.0000e-005	0.6279
Landscaping	0.2180	0.0840	7.2792	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	11.9445	11.9445	0.0114	0.0000	12.2292
Total	3.5740	0.0846	7.2795	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8571

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6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6788					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.6772					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	6.0000e-005	5.4000e-004	2.3000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.6242	0.6242	1.0000e-005	1.0000e-005	0.6279
Landscaping	0.2180	0.0840	7.2792	3.9000e-004		0.0405	0.0405		0.0405	0.0405	0.0000	11.9445	11.9445	0.0114	0.0000	12.2292
Total	3.5740	0.0846	7.2795	3.9000e-004		0.0406	0.0406		0.0406	0.0406	0.0000	12.5687	12.5687	0.0114	1.0000e-005	12.8571

7.0 Water Detail**7.1 Mitigation Measures Water**

Use Reclaimed Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	76,7561	1,3212	0.0317	119,2405
Unmitigated	80,2789	1,3820	0.0332	124,7186

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	41,4863 / 0.232505	78,7029	1,3548	0.0325	122,2675
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.833295 / 0	1,5761	0.0272	6.5000e-004	2,4511
Total		80,2789	1,3820	0.0332	124,7186

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments High Rise	39.6609 / 0.231575	75.2494	1.2952	0.0311	116.8972
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Strip Mall	0.79663 / 0	1.5067	0.0260	6.2000e-004	2.3433
Total		76.7561	1.3212	0.0317	119.2405

8.0 Waste Detail**8.1 Mitigation Measures Waste**

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Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	98.3512	5.8124	0.0000	243.6608
Unmitigated	98.3512	5.8124	0.0000	243.6608

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	452.64	91.8818	5.4301	0.0000	227.6333
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.87	6.4693	0.3823	0.0000	16.0275
Total		98.3512	5.8124	0.0000	243.6608

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments High Rise	452.64	91.8818	5.4301	0.0000	227.6333
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Strip Mall	31.87	6.4693	0.3823	0.0000	16.0275
Total		98.3512	5.8124	0.0000	243.6608

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	:	1:	0:	48:	2011:	0.73; Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

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Equipment Type	Number
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10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (750 - 9999 HP)	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864
Total	0.0792	0.3542	0.2020	3.8000e-004		0.0117	0.0117		0.0117	0.0117	0.0000	36.7576	36.7576	5.1500e-003	0.0000	36.8864

11.0 Vegetation

Exhibit B

Planning Code section 167

SEC. 167. PARKING COSTS SEPARATED FROM HOUSING COSTS IN NEW RESIDENTIAL BUILDINGS.

(a) All off-street parking spaces accessory to residential uses in new structures of 10 dwelling units or more, or in new conversions of non-residential buildings to residential use of 10 dwelling units or more, shall be leased or sold separately from the rental or purchase fees for dwelling units for the life of the dwelling units, such that potential renters or buyers have the option of renting or buying a residential unit at a price lower than would be the case if there were a single price for both the residential unit and the parking space. In cases where there are fewer parking spaces than dwelling units, the parking spaces shall be offered first to the potential owners or renters of three-bedroom or more units, second to the owners or renters of two bedroom units, and then to the owners or renters of other units. Renters or buyers of on-site inclusionary affordable units provided pursuant to Section 415 shall have an equal opportunity to rent or buy a parking space on the same terms and conditions as offered to renters or buyers of other dwelling units, and at a price determined by the Mayor's Office of Housing, subject to procedures adopted by the Planning Commission notwithstanding any other provision of Section 415 *et seq.*

(b) **Exception.** The Planning Commission may grant an exception from this requirement for projects which include financing for affordable housing that requires that costs for parking and housing be bundled together.

(Added by Ord. 217-05, File No. 050865, App. 8/19/2005; Ord. 129-06, File No. 060372, App. 6/22/2006; Ord. 72-08, File No. 071157, App. 4/3/2008; Ord. 112-08, File No. 080095, App. 6/30/2008; Ord. [62-13](#), File No. 121162, App. 4/10/2013, Eff. 5/10/2013)

AMENDMENT HISTORY

Division (a) references corrected; Ord. [62-13](#), Eff. 5/10/2013.

SEC. 168. [REPEALED.]

(Added by Ord. 233-05, File No. 050829, App. 9/30/2005; amended by Ord. [22-15](#), File No. 141253, App. 2/20/2015, Eff. 3/22/2015; repealed by Ord. [53-17](#), File No. 161353, App. 3/17/2017, Eff. 4/16/2017)

Exhibit C

Municipal Recycling and Composting Code

CHAPTER 19:

MANDATORY RECYCLING AND COMPOSTING

Sec. 1901.	Title.
Sec. 1902.	Definitions.
Sec. 1903.	Source Separation of Refuse Required.
Sec. 1904.	Requirements for Owners or Managers of Multifamily and Commercial Properties.
Sec. 1905.	Requirements for Owners or Managers of Food Vendors and Events.
Sec. 1906.	Requirements for Refuse Collectors, Transfer Stations, and Processing Facilities.
Sec. 1907.	Requirement to Subscribe to Refuse Collection Service.
Sec. 1908.	Enforcement.
Sec. 1909.	Forms, Regulations and Guidelines.
Sec. 1910.	Exceptions
Sec. 1911.	Disclaimer of Liability.
Sec. 1912.	Duties are Discretionary.

SEC. 1901. TITLE.

This Chapter shall be entitled "Mandatory Recycling and Composting".

(Added by Ord. 10009, File No. 081404, App. 6/23/2009)

SEC. 1902. DEFINITIONS.

For the purposes of this Chapter, the following words have the following meanings:

- (a) "Adequate Refuse Collection Service" means that a dwelling or commercial property is serviced by a Collector for recyclables, compostables, and trash, and that the level of service is sufficient to contain the refuse generated at that dwelling or commercial property.
- (b) "City" means the City and County of San Francisco.
- (c) "Collection" means taking physical possession of and removing discarded material from the place of generation for subsequent off-site management of that material.
- (d) "Collection Container" means the receptacle that is provided, designated and serviced by the collector for the collection of recyclables, compostables or trash.
- (e) "Collector" means a person, firm or corporation licensed and permitted to collect refuse by the Director of Public Health pursuant to the provisions of the Refuse Collection and Disposal Ordinance adopted November 8, 1932, as amended, and any other collectors of discarded material not excluded

under that ordinance.

(f) "Commercial Property" means a parcel or any portion of real property where refuse is generated that is not a dwelling, including schools, institutions, and City properties.

(g) "Compostable" means any material that can be broken down into, or otherwise become part of, usable compost (e.g., soil-conditioning material) in a safe and timely manner as accepted in San Francisco's compostables collection program, such as food scraps, soiled paper and plant trimmings. Compostable materials can also include disposable plastic food service ware and bags if labeled "Compostable", in accordance with the Food Service Waste Reduction Ordinance (No. 295-06) and Department of the Environment regulations for easy identification, meeting the ASTM Standard Specification (D6400) for compostable plastics, and consistent with State labeling law (California Public Resources Code Section 42359) that any plastic bag or food container labeled "Compostable" must meet the ASTM Standard Specification for compostable plastics.

(h) "Construction and Demolition Debris" means building materials generated from construction and demolition activities including, but not limited to, fully-cured asphalt, concrete, brick, rock, soil, lumber, gypsum wallboard, cardboard and other associated packaging, roofing material, ceramic tile, carpeting, fixtures, plastic pipe, metals, tree stumps, and other vegetative matter resulting from land clearing and landscaping for construction, deconstruction, demolition or land developments. Hazardous waste, as defined in California Health and Safety Code Sections 25100 et seq., is not construction and demolition debris for purposes of this Chapter.

(i) "Customer" means any person being served food from a food vendor or event.

(j) "Department" means the San Francisco Department of the Environment.

(k) "Designated" means clearly labeled and color-coded for a material type, such as labeled blue receptacles for recyclables, green for compostables and black for trash.

(l) "Director" means the Director of the Department of the Environment or his or her designee.

(m) "Disposable Food Service Ware" means all containers, bowls, plates, trays, carton, cups, lids, straws, forks, spoons, knives, napkins and other items that are designed for one-time use for serving food.

(n) "Dwelling" means a residence, flat, apartment, or other facility, used for housing one or more persons.

(o) "Event" means any function that serves food and is permitted through any agency, including, but not limited to, the Department of Parking and Traffic, the Recreation and Park Department, the Port of San Francisco or, to the extent permitted by law, the National Park Service.

(p) "Food Vendor" means any and all sales outlets, stores, shops, vehicles or other places of business located or operating in the city that operate primarily to sell or convey foods or beverages to consumers, and stores that sell food or beverages in combination with a gasoline station.

(q) "Janitor" means the person who is hired by owners and managers of commercial properties and their contractors to process refuse on-site before it leaves the premises.

(r) "Manager" means the authorized agent for the owner of a building, structure or property, who is responsible for the day-to-day operation of said building, structure or property.

(s) "Multifamily Property" means a property that includes multiple residential households and has a single account with collector(s) for recyclables, compostables and trash.

(t) "Person" means a natural person (including a resident, employee, or visitor), a firm, business concern, association, partnership, corporation or governmental entity, including the City and County of San Francisco and its departments, boards and commissions, and successors or assigns.

(u) "Public Trash Container" means any receptacle installed by a public agency at a sidewalk, park or other public area and that is not under the control, unless otherwise required by this Chapter, of a multifamily or commercial property, food vendor or event manager.

(v) "Recyclable" means any material that can be sorted and reconstituted, for the purpose of using the altered form in the manufacture of a new product, as accepted in San Francisco's recycling collection program, such as paper, bottles and cans. Recycling does not include burning, incinerating, converting, or otherwise thermally destroying solid waste.

(w) "Refuse" has the meaning set forth in the Refuse Collection and Disposal Ordinance adopted November 8, 1932, as amended, and includes recyclables, compostables, and trash, but not construction and demolition debris or hazardous waste, all as defined in this Chapter.

(x) "Source Separate" means to divide refuse at the place of discard generation, prior to collection, into separate containers that are designated for recyclables, compostables or trash.

(y) "Transfer Station" means a facility that is permitted under Health Code Section 294 to receive discarded materials and transport them to a landfill for disposal.

(z) "Trash" means material that is designated for landfill disposal by the collector and does not include either recyclable or compostable materials. The term "trash" does not include hazardous waste, as defined in California Health and Safety Code Sections 25100 et seq., or construction and demolition debris as defined in this Chapter.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1903. SOURCE SEPARATION OF REFUSE REQUIRED.

All persons in San Francisco must source separate their refuse into recyclables, compostables and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse. No person may mix recyclables, compostables or trash, or deposit refuse of one type in a collection container designated for another type of refuse, except as otherwise provided in this Chapter.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1904. REQUIREMENTS FOR OWNERS OR MANAGERS OF MULTIFAMILY AND COMMERCIAL PROPERTIES.

(a) Owners or managers of multifamily or commercial properties must provide Adequate Refuse Collection Service to the tenants, employees, contractors, and customers of the properties.

(b) Owners or managers of multifamily or commercial properties must supply appropriate containers, placed in an appropriate location, to make source separation of refuse convenient for the tenants, employees, contractors, and customers of the properties. The containers must:

(1) Be of appropriate number and size in light of the recyclable, compostable, and trash quantities reasonably anticipated to be generated at the location;

(2) Bear appropriate signage and be color coded to identify the type of refuse to be contained—blue

for recyclables, green for compostables, and black for trash—and meet any additional design criteria established by the Department by regulation; and,

(3) Be placed as close together as possible, to provide equally convenient access to users.

(c) Owners or managers of multifamily or commercial properties must provide information and/or training for new tenants, employees and contractors, including janitors on how to source separate recyclables, compostables and trash, and must re-educate existing tenants, employees and contractors at least once a year.

(d) Owners and managers of commercial properties or their contractors will work with on-site janitors to create effective source separation programs as a means of achieving compliance, meeting citywide diversion goals, and achieving the diversion or disposal rate reported annually to the State of California.

(e) New construction or expansion of multifamily or commercial properties may be subject to Department of Building Inspection requirements, such as Administrative Bulletin 088 and Building Code Chapter 13, Section 1304C, to provide adequate space for recyclables and compostables, which includes requiring any chute systems to keep compostables, recyclables and trash separate.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1905. REQUIREMENTS FOR OWNERS OR MANAGERS OF FOOD VENDORS AND EVENTS.

(a) Owners or managers of food vendors and events must provide Adequate Refuse Collection Service to their employees, contractors and customers.

(b) Owners or managers of food vendors and events must supply appropriate containers, placed in appropriate locations, to make source separation of recyclables, compostables, and trash convenient for the employees, contractors, and customers of the food vendors and events. The containers must:

(1) Be of appropriate number and size in light of the recyclable, compostable, and trash quantities reasonably anticipated to be generated at the location;

(2) Bear appropriate signage and be color coded to identify the type of refuse to be deposited—blue for recyclables, green for compostables, and black for trash—and meet any additional design criteria established by the Department by regulation; and,

(3) Be placed as close together as possible to provide equally convenient access to users.

(c) Owners or managers of food vendors and events must provide information and/or training for new tenants, employees, and contractors, including janitors on how to source separate recyclables, compostables, and trash, and must re-educate existing tenants, employees, and contractors at least once a year.

(d) Food vendors that provide disposable food ware must have at least one container each for recyclables, compostables and trash for use by customers and visitors, placed inside near a main exit, unless that food vendor does not use disposable food ware for on-site consumption and serves minimal to go orders per day, but not including any to go orders delivered to residents by a delivery service. Food vendors meeting the requirements of this Section are exempt from the requirement of Public Works Code Section 173 to place "a litter receptacle outside each exit." Multiple food vendors that provide disposable food service ware and share a common eating area may share an appropriate number, size, and placement of containers for recyclables, compostables and trash for convenient use by customers or

visitors.

- (e) Food vendors and events must not put any fats, oils or grease in trash collection containers.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1906. REQUIREMENTS FOR REFUSE COLLECTORS, TRANSFER STATIONS, AND PROCESSING FACILITIES.

(a) All collectors must appropriately designate the collection containers they provide to customers for source separation of recyclables, compostables and trash. The containers must:

- (1) Bear appropriate signage that allows users to clearly and easily identify which containers to use for recyclables, compostables or trash;
- (2) Be color-coded—blue for recyclables, green for compostables and black for trash; and,
- (3) Bear the name of the collector to whom the container belongs.

(b) (1) If a collector finds materials that are not the correct type as designated for that container, such as recyclables or compostables in a trash container, or trash in a compostables or recyclables container, the collector then must leave a tag on the container identifying the incorrect materials.

(2) If the collector continues to find incorrect materials in a collection container after the collector has left a previous tag for that customer and that type of container, the collector must leave another tag on the container identifying the incorrect materials and send a written notice to the person who subscribes for that collection service.

(3) If the collector continues to find incorrect materials in a collection container after the collector has already left two or more tags for that customer and that type of container, the collector may refuse to empty the container, subject to California Code of Regulations Title 14, Section 17331, or as determined by the Director of Public Health or his or her designee. If the container is not emptied, the collector must leave a tag and send a written notice to the person who subscribes for the collection service, identifying the incorrect materials and describing what action must be taken for the materials to be collected; provided, however, that a collector may not refuse on this basis to empty containers from multifamily or commercial properties with multiple tenants and joint account collection service.

(4) The collector shall, upon request, provide to the Director a list of the names and addresses of those persons who have received tags or notices or whose containers have not been emptied due to non-compliance with this Chapter, or copies of the tags or notices issued by the collector. The collector shall also provide to the Director, upon request, a list of the names, addresses, and service levels of the collector's customers and any additional information required by the Director.

(c) Within 90 days of the end of each calendar year, each collector must submit to the Department, on a form specified by the Director, an annual report of all tons collected by material type and to whom the material was sent.

(d) No person may deliver recyclables or compostables, including those mixed with trash, to a landfill or transfer station for the purpose of having those materials landfilled, except as follows:

(1) A collector may drop off recyclables or compostables at the San Francisco transfer station for landfill if the transfer station has agreed to provide to the Director, upon request, audits of collection vehicles for a specified period going forward in time. The transfer station's audit shall report the quantity of recyclables or compostables, stated as estimated tons per load or as a percentage of the loads,

deposited at the transfer station by collection vehicles specifically identified in the request over a reasonable period of time occurring after the request.

(2) A processing facility that sorts and reconstitutes recyclables for the purpose of using the altered form in the manufacture of a new product or turns compostables into usable and marketable compost (e.g., soil-conditioning) material may send to a landfill a minor portion of those materials that constitutes unmarketable processing residuals, if the processing facility provides to the Director, upon request, audits of specific collection vehicles for a specific period going forward in time, of the quantities of recyclables or compostables sent to the landfill from the processing facility.

(e) No person may deliver trash from the city, including trash mixed with recyclables or compostables, to a processing facility, unless the processing facility has agreed to provide to the Director, upon request, audits of collection vehicles for a specified period going forward in time. The processing facility's audit shall report the quantity of trash, stated as estimated tons per load or as a percentage of the loads, deposited at the processing facility by collection vehicles specifically identified in the request over a reasonable period of time occurring after the request.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1907. REQUIREMENT TO SUBSCRIBE TO REFUSE COLLECTION SERVICE.

Owners of residential, multifamily or commercial properties, events or other facilities that generate refuse must subscribe to and pay for Adequate Refuse Collection Service, and provide an accessible location for sufficient levels of service with collector(s) for source separated recyclables, compostables and trash, except as otherwise provided in this Chapter. Owners of such properties are responsible for any failure to subscribe to or pay for sufficient levels of refuse collection service. The Director of Public Health, pursuant to Health Code Article 6, as amended, shall enforce requirements for adequate and continuous refuse collections services.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1908. ENFORCEMENT.

(a) The Director and his or her designee may administer all provisions of this Chapter and enforce those provisions by any lawful means available for such purpose, except as otherwise provided in this Chapter.

(b) To the extent permitted by law, the Director may inspect any collection container, collection vehicle load, or receiving facility for collected trash, recyclables or compostables.

(c) Except as otherwise provided in this Chapter, the Director of the Department of Public Health or his or her designee may impose administrative fines for violations of those provisions of this Chapter, or of rules and regulations adopted pursuant to this Chapter, that pertain to the jurisdiction of the Department of Public Health.

(d) Except as otherwise provided in this Chapter, the Director of Public Works or his or her designee may impose administrative fines for violations of those provisions of this Chapter, or of any rule or regulation adopted pursuant to this Chapter, that pertain to the jurisdiction of the Department of Public Works.

(e) San Francisco Administrative Code Chapter 100, "Procedures Governing the Imposition of

Administrative Fines," as amended, is hereby incorporated in its entirety and shall govern the imposition, enforcement, collection, and review of administrative citations issued to enforce this Chapter and any rule or regulation adopted pursuant to this Chapter; provided, however, that:

- (1) The Director of Public Works or the Director of Public Health may adopt regulations providing for lesser penalty amounts than those provided in Administrative Code Section 100.5;
 - (2) The fine for any violation at a dwelling or commercial property that generates less than one cubic yard of refuse per week may not initially exceed \$100; and,
 - (3) No person who is the owner, tenant, manager, employee, contractor, or visitor of a multifamily or of a multi-tenant commercial property shall be subject to fines or penalties for violation of Section 1903 (but will remain subject to such enforcement for violations of section 1904 and other sections of the Ordinance), unless and until the Director of the Department of the Environment has adopted specific regulations setting out the liability of such persons. The Director shall not adopt such regulations prior to July 1, 2011.
- (f) The City shall use administrative penalties collected under this Chapter, including recovery of enforcement costs, to fund implementation and enforcement of this Chapter. Remedies under this Chapter are in addition to and do not supersede or limit any and all other remedies, civil or criminal.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1909. FORMS, REGULATIONS AND GUIDELINES.

- (a) After public notice and a public hearing, the Director may adopt necessary forms, regulations, and guidelines to implement this Chapter.
- (b) The Department shall provide assistance regarding compliance with this Chapter.
- (c) The Department shall provide information on its website regarding what materials are accepted as recyclables, compostables, and trash under this Chapter.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1910. EXCEPTIONS

- (a) A property owner or manager may seek a waiver from the Director of all or portions of this Chapter, if the applicant submits documentation, using a form specified by the Director and including a signed affidavit under penalty of perjury, that shows that the property does not have adequate storage space for containers for recyclables, compostables or trash. In cases where after on-site verification space limitations are determined to exist, the Director shall evaluate the feasibility of sharing containers for recyclables, compostables or trash with contiguous properties, and, where feasible, requiring container sharing in lieu of providing a waiver.
- (b) Except as otherwise required by the Director, a collector may drop-off compostables or recyclables at the San Francisco transfer station that have been collected from public trash containers. The Director may require public trash containers to have a recyclables receptacle attached.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1911. DISCLAIMER OF LIABILITY.

The degree of protection required by this Chapter is considered to be reasonable for regulatory purposes. The standards set forth in this Chapter are minimal standards and do not imply that compliance will ensure safe handling of recyclables, compostables or trash. This Chapter shall not create liability on the part of the City, or any of its officers or employees for any damages that result from reliance on this Chapter or any administrative decision lawfully made in accordance with this Chapter. All persons handling discarded materials within the City should be and are advised to conduct their own inquiry as to the handling of such materials. In undertaking the implementation of this Chapter, the City is assuming an undertaking only to promote the general welfare. It is not assuming, nor is it imposing on its officer and employees, an obligation for breach of which it is liable in money damages to any person who claims that such breach proximately caused injury.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)

SEC. 1912. DUTIES ARE DISCRETIONARY.

Subject to the limitations of due process and applicable requirements of State or Federal laws, and notwithstanding any other provisions of this Code, whenever the words "shall" or "must" are used in establishing a responsibility or duty of the City, its elected or appointed officers, employees or agents, it is the legislative intent that such words establish a discretionary responsibility or duty requiring the exercise of judgment and discretion.

(Added by Ord. 100-09, File No. 081404, App. 6/23/2009)